Rising to the Challenge in Asia: A Study of Financial Markets

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Foreword

The Asian currency and financial crisis has had far-reaching effects on the regional economies and their trading partners. These effects have threatened to wash away the region's significant social and economic advancement achieved during the preceding years of rapid growth. The crisis has also unveiled many intricate problems and challenges in macroeconomic management, banking and capital markets management, institutional capacity, and governance of the financial systems in the region.

Recognizing the urgency of addressing these problems and challenges, the Economics and Development Resource Center of the Asian Development Bank undertook a regional study of financial markets in nine developing member countries: People's Republic of China, India, Indonesia, Republic of Korea, Malaysia, Pakistan, Philippines, Thailand, and Viet Nam. The objectives of the study were to analyze and deepen the understanding of the sources of the crisis in currency and financial markets, to provide a useful basis for designing and implementing preventive measures and refocused country strategies, and to help the Bank and its member countries build robust and sustainable financial systems in the region.

The study was designed, supervised, and coordinated by S. Ghon Rhee, Resident Scholar, 1997–1999. A large number of Bank staff and renowned scholars and experts contributed to this study.

Regional policy issues and recommendations based on the findings of the study were discussed at the High-Level Workshop on the Asian Financial Crisis in Tokyo, on 25–26 March 1999. This workshop was hosted by the Bank, the ADB Institute, and the Institute of Fiscal and Monetary Policy of the Ministry of Finance of Japan.

The present series of publications seeks to bring the research findings to a much wider audience and hopes to contribute to a better understanding of the Asian financial crisis and how its recurrence can be prevented in the future.

Jungsoo Lee
Chief Economist

Preface

Rising to the Challenge in Asia: A Study of Financial Markets presents the findings of a study carried out under *Regional Technical Assistance 5770: Study of Financial Markets in Selected Member Countries.* Many Asian Development Bank staff members and outside experts contributed to the study's successful completion.

The core members for the study were Ramesh Adhikari, David Edwards, Tobias Hoschka, Sudipto Mundle, Soo-Nam Oh, Pradumna Rana, Yutaka Shimomoto, Reza Siregar, Peggy Speck, Ramesh Subramaniam, and Vo Van Cuong. The outside experts were Stephen Cheung (Hong Kong, China), Yoon Je Cho (Republic of Korea), Jang-Bong Choi (Republic of Korea), Catherine Chou (Hong Kong, China), G.H. Deolalkar (India), Maria Socorro Gochoco-Bautista (Philippines), Akiyoshi Horiuchi (Japan), Masahiro Kawai (Japan), Mohammad Zubair Khan (Pakistan), Joseph Y. Lim (Philippines), Sang-Koo Nam (Republic of Korea), Anwar Nasution (Indonesia), Edward Ng (Singapore), Jaeha Park (Republic of Korea), Mohd. Haflah Piei (Malaysia), Ken-Ichi Takayasu (Japan), Khee Giap Tan (Singapore), S. K. Tsang (Hong Kong, China), Stephen Wells (United Kingdom), Richard Werner (Germany), Min-Teh Yu (Taipei,China), and Barents Group LLC (KPMG).

Thirty-seven reports are contained in a series of 12 volumes:

Volume 1: Regional Overview
- Macroeconomic Policy Issues
- Banking Policy Issues
- Capital Market Policy Issues

Volume 2: Special Issues
- Asset Management Entities
- Deposit Protection Schemes

Volume 3: Sound Practices
- Corporate Governance (Hong Kong, China)
- Currency Board (Hong Kong, China)
- Central Provident Fund (Singapore)
- Dichotomized Financial System (Singapore)
- Banking Sector (Taipei,China)

Volumes 4–12: Country Studies
- Macroeconomic Policy Issues
- Banking Policy Issues
- Capital Market Policy Issues

The volumes benefited extensively from constructive comments from the Bank interdepartmental working group, and the ministries of finance, central banks, and securities and exchange commissions of the nine member countries that participated in the regional technical assistance study program and in the High-Level Workshop on the Asian Financial Crisis in Tokyo, on 25–26 March 1999. Mitsuo Sato, former President of the Asian Development Bank; Bong-Suh Lee, former Vice-President (Region West); and Peter Sullivan, Vice-President (Region East) provided strong support and guidance throughout this project.

Soo-Nam Oh coordinated the research and publication activities. Wilhelmina Paz, Lagrimas Cuevas, Anthony Ygrubay, Ruben Mercado, Virginia Pineda, and Rosalie Postadan provided administrative and technical support. The volumes were edited by Gloria Argosino, Mary Ann Asico, Graham Dwyer, and Muriel Ordoñez. Typesetting, computer graphics, and conceptualization of the cover design were done by Segundo de la Cruz, Jr.

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Acronyms and Abbreviations

ALM	asset liability management
AMEX	American Stock Exchange
BIS	Bank for International Settlements
BMF	Bond Management Fund
BOK	Bank of Korea
BOK-Wire	Bank of Korea Wire
CAR	capital adequacy ratio
CASS	Computer-Assisted Surveillance System
CD	certificate of deposit
COSIS	Comprehensive Market Surveillance and Information System
DFP	Department of Financial Policy
FLC	forward-looking criteria
FSB	Financial Supervisory Board
FSC	Financial Supervisory Commission
FSS	Financial Supervisory Service
IAS	Institution Affirmation and Settlement
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPO	initial public offering
ISB	Insurance Supervisory Board
ITC	investment trust company
ITMC	investment trust management company
KAMCO	Korea Asset Management Corporation
KATS	KSE Automated Trading System
KDIC	Korea Deposit Insurance Corporation
KEB	Korea Exchange Bank
KFB	Korea First Bank
KOSCOM	Korea Securities Computer Corporation
KOSDAQ	Korea Securities Dealers Association Automated Quotation
KOSPI	Korea Composite Stock Price Index 200
KSD	Korea Securities Depository
KSDA	Korea Securities Dealers Association
KSE	Korea Stock Exchange
KSFC	Korea Securities Finance Corporation
KSRI	Korea Securities Research Institute
KSSC	Korea Securities Settlement Corporation
M&A	merger and acquisition
MIS	Market Information System
MOFE	Ministry of Finance and Economy

NBFI	nonbank financial institution
NBIC	Nonbank Insurance Corporation
NIBD	New Issue Blanket Deposit
NOCR	net operating capital ratio
NPL	nonperforming loan
NYSE	New York Stock Exchange
OBS	Office of Bank Supervision
OECD	Organisation for Economic Co-operation and Development
OTC	over-the-counter
P&A	purchase and assumption
PC	personal computer
PCA	prompt corrective action
ROE	return on equity
RP	repurchase agreement
RTGS	real-time gross settlement
SAFE	Speedy, Accurate, Faithful and Efficient Terminal
SEC	Securities and Exchange Commission
SFC	Securities and Futures Commission
SRO	self-regulatory organization
SSB	Securities Supervisory Board
SWAS	Stock Watch System
VAR	value-at-risk
WTO	World Trade Organization

Korea refers to the Republic of Korea.
$ pertains to US dollars.

The Korean Banking Sector: Current Issues and Future Direction

Donghyun Ji and Jaeha Park

Donghyun Ji is Research Fellow of Korea Institute of Finance and Board Member of Chohung Bank.
Jaeha Park is Senior Counselor to the Minister of Finance and Economy, Korea.

Executive Summary

This paper attempts to (i) describe the causes of the banking crisis and procedures of crisis resolution, (ii) summarize policy issues, and (iii) draw policy recommendations. It has four sections: (i) overview of the Korean banking sector, (ii) recent developments in the banking sector, (iii) policy issues, and (iv) policy recommendations. The first section shows how the banking sector has grown rapidly in the last 50 years and contributed significantly to the country's remarkable economic growth by mobilizing financial resources for business firms. However, selective credit allocation and prolonged interest control—the primary tools of economic development in Korea—have resulted in an inefficient and distorted financial system. Extensive Government involvement in the internal management of financial institutions has undermined the autonomy and accountability of management. Lack of an effective supervisory system resulted in excessive risk taking and moral-hazard problems plaguing the industry. The corporate bankruptcies of 1997 saddled the nation's commercial banks with extremely large nonperforming loans (NPLs), which led to the banking crisis.

The second section discusses (i) restructuring of the banking sector, (ii) resolution of NPLs and recapitalization of banks, (iii) reshaping of the institutional framework, (iv) deposit insurance system, (v) prudential regulation, and (vi) loan classification standards and provisioning requirements. Two critical questions regarding restructuring are (i) how to share the costs among the parties concerned and (ii) how to mobilize the necessary resources. The Government has made it clear that the cost of economic restructuring must be met primarily by the financial institutions so as to minimize both the burden on taxpayers and the risk of moral hazard. The Government will provide supplementary fiscal support for (i) the purchase of NPLs, (ii) recapitalization of viable institutions, and (iii) possible deposit payoffs in the event of closure, but only if the ailing institutions' self-rescue plans are successfully implemented. The necessary public funds are raised mainly by issuing bonds of the Korea Asset Management Corporation (KAMCO) and the Korea Deposit Insurance Corporation (KDIC), whose interest payments are absorbed by the budget. Along with restructuring, swift and prudent reform also requires an institutional framework to coordinate and monitor the reform process. The Financial Supervisory Commission (FSC) and the Ministry of Finance and Economy (MOFE) have made significant efforts to improve the institutional setting of the financial system in order to prevent another crisis. Crisis prevention demands a healthy domestic financial system. Necessary preconditions for such a financial system are (i) confidence of depositors, (ii) sound risk management, and (iii) prudential regulation. Since the crisis, the Government has established a system of prudential regulation and supervision for the financial sector. The new system includes (i) a strengthened prompt corrective action (PCA) scheme, (ii) a transparent accounting system with accurate and conservative portfolio valuation and classification, (iii) new banking sector disclosure items, (iv) enforcement of liquidity management relative to foreign exchange risk, and (v) transparent treatment of trust accounts.

The third section focuses on seven policy issues: (i) prudential regulation, (ii) resolving NPLs, (iii) deposit insurance system, (iv) enhancing competition, (v) improving financial governance, (vi) bank restructuring, and (vii) resolving the credit crunch. The Government has allocated significant resources to address each issue, especially after the crisis. However, the issues have not been resolved yet because most of them are long-term and institutional. The section discusses prudential regulation in detail as it is essential for preventing crises from recurring.

The fourth section recommends policies to solve the problems discussed in the previous section. The most important policy is on staffing regulatory organizations. KAMCO should sell NPLs within a limited time period. Private "bad" banks (those dealing

with bad loans) must be established in order to activate the distressed assets market. The deposit insurance system must charge according to risk. To enhance competition, the Government should significantly lower entry barriers. Ownership restrictions should be removed and board governance strengthened. The Government should also introduce transparent management of de facto State banks.

In sum, the crisis was amplified by (i) capacity-driven policy, (ii) loose market discipline, and (iii) lack of transparency. As a result, banks burdened with NPLs suffer from eroded capital. The Government established four basic principles for financial restructuring and completed the first round of restructuring at the end of September 1998. The second round of restructuring focuses on reengineering banking processes and empowering bankers. Banks are encouraged to implement best practices in the area of (i) corporate governance, (ii) strategy, (iii) structure, (iv) risk management, and (v) performance culture. The first round of restructuring was relatively easy because it was initiated by the International Monetary Fund (IMF), and its economic rationale overrode all political issues. However, many difficulties are expected in the second round of restructuring since IMF no longer has the power to impose restructuring, and it is more difficult to restructure software than hardware. The process will be a long one.

Overview

The Korean financial industry consists of three groups: (i) a central bank (BOK); (ii) deposit money banks, including commercial and specialized banks; and (iii) nonbank financial institutions (NBFIs), which include development, savings, investment, insurance, and other institutions.

The Korea Development Bank and Export-Import Bank of Korea engage in similar activities. Using Government funds, foreign capital, or funds raised from the issue of special debentures, they provide medium- and long-term loans or credit to key sectors such as (i) the export industry, (ii) parts and components industry, (iii) high-technology business, and (iv) research and development projects for developing new technologies.

Savings institutions consist of (i) trust accounts of banks, (ii) mutual savings and finance companies, (iii) credit unions, (iv) mutual credit facilities, (v) community credit cooperatives, and (vi) postal savings. They grant small loans with funds raised through time deposits.

Investment institutions act as financial intermediaries in the money and capital markets. They include (i) merchant banking corporations, (ii) securities investment trust companies, and (iii) the Korea Securities Finance Corporation.

Insurance institutions are composed of (i) domestic life insurance companies, (ii) joint ventures with foreign insurance companies, (iii) branches and subsidiaries of foreign life insurance companies, and (iv) Postal Life Insurance.

Other institutions are (i) securities companies; (ii) leasing companies; and (iii) installment credit companies, the last of which were launched in 1996. They function as supplementary financial institutions, but do not act as financial intermediaries.

Banks are either commercial or specialized. Commercial banks may be (i) nationwide banks, (ii) regional banks, or (iii) foreign bank branches.

As of end-1998, there were 12 nationwide commercial banks with 4,199 domestic branches (Table 1).[1] Among commercial banks, nationwide banks hold the largest assets: W517 trillion or 85 percent of total assets. The major sources of the banks' funds are bank deposits: (i) won deposits, (ii) certificates of deposits (CDs), and (iii) foreign currency deposits.

There are eight regional banks with total assets of W48 trillion (Table 1).[2] They are authorized to operate principally within their own province, but individual banks may open up to 10 branches in Seoul and 2 branches in each of the six major regional cities. The financial structure of a regional bank is similar to that

Table 1: **Capital and Assets of Deposit Money Banks, as of end-1998 (W billion)**

Bank	Paid-in Capital	Equity Capital	Deposits (including trust accounts)	Total Assets
Nationwide Banks				
Chohung	9,304	1,351	32,568	45,594
Hanvit	34,450	38,449	61,261	88,780
Korea First	16,000	485	25,085	34,949
Seoul	16,000	2,655	19,806	29,977
Korea Exchange	11,750	16,636	34,177	52,200
Kookmin	13,815	31,800	56,397	87,430
Korea Housing	7,427	13,986	39,339	55,099
Shinhan	11,690	24,135	29,178	44,515
KorAm	7,483	9,752	17,556	26,466
Hana[a]	3,496	8,633	21,064	27,825
Boram[a]	1,756	721	12,256	15,846
Peace	2,200	(883)	6,180	8,426
Subtotal	135,371	147,720	354,867	517,106
Regional Banks				
Daegu	5,021	5,055	9,404	12,799
Pusan	3,252	2,649	8,372	10,999
Kwangju	2,800	1,919	5,157	7,027
Cheju	550	528	1,161	1,465
Jeonbuk	1,153	1,243	2,423	3,212
Kangwon	250	(1,905)	2,249	3,078
Kyongnam	2,470	3,053	5,022	7,139
Chungbuk	250	(698)	1,795	2,255
Subtotal	15,746	11,844	35,583	47,974
Total	151,117	159,564	390,450	565,080

( ) = negative values are enclosed in parentheses.
[a] Hana Bank and Boram Bank were merged in January 1999.
Source: Financial Supervisory Service, 1999.

of a nationwide commercial bank, except that the proportion of deposits in foreign currencies is smaller.

Fifty-one foreign banks were operating in the country as of end-1998. Foreign banks have been more successful in wholesale than retail banking due to their comparative advantage. They hold equities equal to about 15 percent of their total assets or about W41.3 trillion.

There are four specialized banks: (i) Industrial Bank of Korea, which finances small and medium-sized enterprises; (ii) the credit and banking sector of the National Agricultural Cooperative Federation; (iii) the National Federation of Fisheries Cooperatives'; and (iv) the National Livestock Cooperatives Federation's bank. The Government uses them mainly as a direct conduit to control the flow of funds to various economic sectors to carry out its industrial policy. However, the banks also engage in commercial banking activities, which have considerably increased.

The banking sector has grown rapidly in the last 50 years and contributed significantly to the country's remarkable economic growth by mobilizing financial resources for business firms in the 1960s and 1970s, when it dominated the financial market. In the early 1970s, however, the Government established various NBFIs and developed the securities market to diversify the sources of investment funds and to induce the unorganized curb market to enter the organized financial market. NBFIs have grown rapidly owing to their higher interest rates and greater degree of managerial autonomy. As a result, the bank-

ing sector's share of deposits decreased from 51 percent in 1975 to about 20 percent in 1997, while that of nonbanks increased sharply (Table 2).

The banking sector suffered due to inefficient internal management and was exposed to moral hazard. The Government-led growth strategy since the early 1960s has involved routine Government intervention in the financial sector, preventing the development of market discipline. Selective credit allocation and prolonged interest control—the primary tools of the country's economic development—resulted in an inefficient and distorted financial system. Segmentation within the financial industry as well as high entry barriers have limited financial institutions' initiative and innovation. Extensive Government involvement in the internal management of financial institutions has undermined their autonomy and accountability. Its ineffective supervisory system allowed excessive risk taking by financial institutions.

The Government has intermittently attempted to overhaul the outmoded financial system into one that is market-oriented.[3] However, its reform efforts often faced political barriers, and their scope was too limited to eradicate the distortions deeply rooted in the financial sector.

In particular, moral hazard of the implicit Government guarantee was so severe as to be an important source of the financial crisis. Commercial and merchant banks have long operated under the guarantee, although it is not legally codified. Few believed that the Government would allow the banks to fail. The guarantee encouraged domestic financial institutions to borrow more funds abroad and invest in riskier projects than they otherwise would, confident that the Government would bail them out if they incurred serious losses. The financial system's infrastructure was inadequate by international standards of transparency of public and private financial institutions, bank capital requirements, banking supervision, and bankruptcy procedures.

In the absence of proper prudential supervision, the guarantee created moral hazard, reducing the incentive to assess potential projects for risk. The economy as a whole ended up investing too much and taking on excessive risk.

Even before the onset of the currency crisis, the financial system was already in dire straits because of excessive lending to large conglomerates, many of which were already bankrupt.[4] Financial institutions' nonperforming loans (NPLs) amounted to W28.5 trillion as of September 1997, or 6.3 percent of all outstanding loans. Merchant banks held an additional W3.9 trillion of bad loans as of October 1997, or 2.9 percent of all outstanding loans.

Table 2: Deposits of Various Financial Sectors

	Amount (W billion)					Percent Share				
			Capital Market[a]					Capital Market[a]		
Year	Banks	Nonbanks[b]	Equity	Bond	Total	Banks	Nonbanks[b]	Equity	Bond	Total
1975	1,944	912	916	52	3,824	50.8	23.9	24.0	1.4	100.0
1980	8,577	7,062	2,527	1,649	19,815	43.3	35.6	12.8	8.3	100.0
1985	21,327	31,494	6,570	7,263	66,654	32.0	47.3	9.9	10.9	100.0
1990	59,237	136,498	79,020	22,068	296,823	20.0	46.0	26.6	7.4	100.0
1992	82,677	212,332	84,712	32,697	412,418	20.1	51.5	20.5	7.9	100.0
1995	144,494	433,505	141,151	56,456	775,606	18.6	55.9	18.2	7.3	100.0
1997	192,172	595,338	70,989	86,024	944,523	20.4	63.0	7.5	9.1	100.0
1998	233,253	661,227	137,799	119,435	1,151,714	20.3	57.4	12.0	10.4	100.0

[a] Based on the total market value of stocks and b onds.
[b] Include trust accounts of banks, insurance companies, mutual savings and finance companies, credit unions, securities investment trust companies, etc.
Source : Ministry of Finance and Economy, *Financial Statistics Bulletin,* various issues.

The bankruptcies saddled commercial banks with extremely large NPLs: 14.9 percent of total loans by December 1997, compared with 3.9 percent in December 1996. By end-1997, commercial banks held 82.5 percent of all NPLs among banks, and 78 percent among financial institutions, making them highly vulnerable to the financial crisis. Moreover, only 12 of 26 commercial banks had satisfied the required 8 percent capital adequacy ratio (CAR).

Moral hazard affected foreign financial institutions' lending to Korean banks and other financial institutions. Since foreign banks were aware of the Government guarantee, they did not see the need to conduct careful credit analyses of Korean financial institutions and firms to which they were lending vast sums of money. When the crisis began, however, foreign banks and investors abruptly withdrew their investments, making no serious effort to reschedule their loans to troubled Korean banks.

Recently, the banking industry has been changing substantially under the comprehensive financial reform program agreed upon by the Government and the International Monetary Fund (IMF). For example, the five commercial banks which the Financial and Supervisory Commission (FSC) evaluated on 29 June 1998 as unviable were ordered to be liquidated and to have their good assets and liabilities transferred to stronger banks under a purchase and assumption (P&A) arrangement. Commercial Bank and Hanil Bank, which were conditionally approved for restructuring by FSC were merged. Korea First Bank and Seoul Bank, which proved insolvent in 1997 and were thereafter recapitalized by the Government, are to be sold to foreign banks.

In the early 1990s, the Government abolished most regulations related to the internal management of banks. Only a few remain, including the following:

- Commercial banks are prohibited to issue financial debentures in excess of their capital.
- They are not allowed to invest in real estate necessary for the conduct of their business in excess of 40 percent of their equity capital.
- They are not permitted to grant loans in excess of their deposits.
- They are required to have liquid assets in excess of 30 percent of liquid liabilities.
- Total amount of loans granted to a single individual or a single business group is limited to 45 percent of a bank's equity capital.
- Total amount of investment in securities may not exceed the size of a bank's equity capital.
- Regional commercial banks are required to lend to small and medium-size enterprises at least 60 percent of the increments of their loans; nationwide commercial banks must lend 45 percent.

Most regulations concerning foreign banks were abolished in the early 1990s. Regulations relating to domestic banks are now applied to foreign banks.

Korean banks' low profitability makes it difficult for them to recover on their own. Plans to enhance profit must be directed toward the following benchmarks: (i) return on asset—1 percent, (ii) return on equity—15 percent, and (iii) efficiency ratio—under 60 percent.[5] At the same time, the central bank needs to maintain a sufficiently large difference between the long-term and short-term interest rates so that banks can keep a sustainable net interest margin.

In order for banks to become competitive, their managers must keep the interests of shareholders in mind and maximize the banks' value. Corporate governance should be strengthened to allow managers to minimize agency problems. Only profitable banks can be competitive, and only productive banks can be profitable. Banks have slashed the number of their branches and employees. They will be profitable if they succeed in managing their bad assets.

Recent Developments

Restructuring of the Banking Sector

On 14 April 1998, the Government announced the basic framework of financial sector restructuring.[6]

Prior to this, it was occupied with currency crisis management and resorted to quick-fix and partial measures to cure ailing institutions such as the merchant banks, Korea First Bank, and Seoul Bank. It was too busy to design a consistent and extensive restructuring program.

The basic functions of financial restructuring can be summarized as follows:

- Stabilize financial markets through swift and extensive reform.
- Provide timely and sufficient fiscal support.
- Set transparent principles for accountability among parties concerned.
- Conform with internationally accepted standards.

The first and second components aim at normalizing the financial system as soon as possible through swift and far-reaching reform with extensive fiscal support. They are based on other countries' experiences that delayed action increases the cost of restructuring and decreases the probability of success. Specifically, nonviable financial institutions must be distinguished from viable ones. Once this is done, the Government can act swiftly to bolster viable institutions through equity participation and the purchase of NPLs. To qualify for this assistance, banks are required to downsize their branch network and lay off employees; fiscal support will be linked to their efforts to minimize the taxpayers' burden and eliminate moral hazard. Institutions judged as "nonviable" will be closed in order to stabilize the financial market and protect depositors and creditors from defaults. The third element stresses the need for clear burden-sharing rules in dealing with insolvent institutions. The fourth ensures that structural reforms will be made in accordance with market principles and international standards and practices.

Financial sector restructuring will be pursued in two phases:

- The banking sector will be normalized before NBFIs.
- Reform of NBFIs will proceed depending on the financial market situation.

FSC announced the first financial sector restructuring schedule on 14 April and the revised one on 19 June 1998. The first round of restructuring of commercial banks was completed by end-September 1998.

Most financial institutions were reviewed according to schedule and subjected to corrective action. Table 3 presents a summary of financial restructuring as of end-August 1999.

Even though all the institutions went through the same appraisal process, conditionally approved banks were treated differently from nonbanks. Fiscal support for banks was provided only when rehabilitation plans were approved by FSC and implemented. Voluntary mergers of banks and entry of foreign investment were encouraged through support measures

Table 3: **Summary of Financial Restructuring, as of end-August 1999**

Financial Institution	Number (as of end-1997)	License Revoked	Merged	Suspended	Liquidated	Total
Banks	33	5	4	0	0	9
Merchant Banks	30	17	2	0	0	19
Securities Companies	36	5	0	0	1	6
Insurance Companies	50	4	1	0	0	5
Investment Trust Companies	31	2	0	0	5	7
Mutual Savings and Finance Companies	231	25	5	11	7	48
Credit Unions	1,666	1	44	30	131	206
Leasing Companies	25	0	0	0	5	5
Total	2,102	59	56	41	149	305

Source: Ministry of Finance and Economy.

such as Korea Asset Management Corporation's (KAMCO's) purchase of NPLs or recapitalization by Korea Deposit Insurance Corporation (KDIC) in order to reverse the deterioration of the Bank for International Settlements (BIS) CAR upon acquisition of a troubled bank.

The general restructuring strategy was strictly applied to 26 commercial banks (16 nationwide banks and 10 regional banks). The restructuring process proceeded as follows:

- The Government recapitalized Korea First Bank and Seoul Bank, which proved insolvent in 1997 before the restructuring blueprint was ready in April 1998. On 30 January 1998, the Government and KDIC invested W1.5 trillion in each bank, after reducing their paid-in capital from W820 billion to W100 billion each. In December 1998 and February 1999, the Government signed a memorandum of understanding with Newbridge Capital and Hong Kong and Shanghai Bank for the sale of Korea First Bank and Seoul Bank, respectively.
- FSC examined the capital adequacy of the other banks in December 1997. Twelve banks fell short of the BIS CAR of 8 percent and were required to submit self-rehabilitation plans by 30 April 1998. The other 12 banks satisfied the BIS CAR upon completion of due-diligence reviews by the end of August. Troubled banks are subject to forceful corrective action.
- Accounting firms conducted due-diligence reviews of the banks from 1 May to 8 June 1998 in accord-ance with the internationally accepted criteria agreed upon with the World Bank.[7] The review results were much worse than expected (Table 4). A comparison of the banks' reported NPL ratios as of December 1997 with the ratios from the due-diligence review, using the numbers as of March 1998, indicates how distorted the officially an-nounced bank data are, even after considering that a stricter standard in evaluating loans and other assets was applied and a three-month difference between the measurements existed.

Table 4: Results of Due Diligence Reviews on 12 Undercapitalized Banks

	Bank Reports (as of December 1997)			Assessment Results[a] (as of March 1998)				
	Asset (W billion)	NPL[b] (W billion)	NPL Ratio (%)	Adjusted Asset (W billion)	BIS Ratio (%)	NPL[b] (W billion)	NPL Ratio (%)	Rating[c]
Chohung	55,600	2,623	7.0	44,280	1.5	6,926	19.2	C
Commercial	48,552	1,451	4.8	38,004	1.8	7,249	24.3	C
Hanil	53,853	1,324	3.6	43,508	4.5	6,772	20.2	C
Korea Exchange	62,319	2,518	5.7	47,174	2.1	10,792	28.6	C
Chung Chong	4,829	425	12.5	3,770	(6.0)	1,619	36.3	D
Kyungki	8,894	590	9.7	7,239	(9.6)	2,862	49.0	D
Dongwha	12,968	602	7.9	9,556	(3.7)	2,254	28.5	D
Dongnam	10,055	293	5.7	7,115	(5.8)	1,118	20.9	D
Daedong	7,715	487	9.6	5,563	(6.8)	1,735	34.1	D
Peace	8,359	228	4.5	6,517	(1.6)	602	12.9	C
Kangwon	3,869	443	18.3	2,969	(16.0)	1,034	45.8	C[d]
Chungbuk	3,139	249	11.3	2,487	(5.5)	801	28.5	C
Total	280,152	11,233		218,182		43,764		

( ) = negative values are enclosed in parentheses.
BIS = Bank for International Settlements, NPL = nonperforming loan.
[a] Assessment is based on new criteria applied to numbers as of March 1998, while the numbers as of December 1997 are based on the old Office of Bank Supervision (OBS) criteria.
[b] NPL: Precautionary and lower.
[c] Ratings assigned by FSC (C: conditionally approved; D: disapproved).
[d] Despite having the second highest NPL ratio, Kangwon Bank got a conditional approval when its merger with Hyundai Merchant Bank was announced. Both are affiliated companies of the Hyundai Group.
Sources: FSC Press release, 1 July 1998; bank statistics.

- The 12-member Bank Appraisal Committee evaluated the rehabilitation plans from 20 to 27 June 1998, and submitted its suggestion to FSC on 28 June.[8] The items reviewed were (i) capital adequacy, (ii) recapitalization plan, (iii) asset quality classification, (iv) reduction plan for risky assets, (v) cost reduction scheme, and (vi) management improvement plan, among others.
- With input from the Bank Appraisal Committee, on 29 June 1998, FSC evaluated the prospects for viability and arrived at either an "approval," "conditional approval," or "disapproval" classification for each bank.[9] None of the banks received "approval." FSC's final decisions were (a) "conditional approval" for seven banks and (b) "disapproval" of five banks.
- The seven conditionally approved banks were ordered to submit by end-July revised implementation plans containing management reforms and recapitalization plans, including foreign fund inducement and bank merger. The plans are reviewed quarterly. If the implementation plans are disapproved, a mandatory merger or transfer of business order is to be imposed. Commercial Bank and Hanil Bank have decided to merge. The other banks are undergoing self-rehabilitation.
- The five disapproved banks were liquidated and their good assets and liabilities were transferred to relatively stronger banks under a P&A arrangement.[10] The P&A order was a historical event as no Korean bank had ever been closed before, and it gave a clear signal that financial institutions would no longer enjoy unconditional protection.
- However, a few conditionally approved banks were too big to be allowed to fail. Thus, the Korea First Bank and the Seoul Bank were permitted to continue their operations. The five closed banks' assets constituted only 7.3 percent of the 12 undercapitalized banks' total assets.

Four bank mergers were completed as of end-1999, encouraged by FSC's promise to purchase NPLs or to support recapitalization: (i) Hanvit Bank (Commercial Bank of Korea and Hanil Bank merger); (ii) Hana Bank (Hana Bank and Boram Bank merger); (iii) Kookmin Bank (Kookmin Bank and Korea Long-term Credit Bank merger); and (iv) Chohung Bank (Chohung Bank, Chungbuk Bank, Kangwon Bank, and Hyundai Merchant Bank merger).

Resolution of Nonperforming Loans and Recapitalization of Banks

There are two critical questions regarding economic restructuring: (i) how to share the costs among the parties concerned and (ii) how to mobilize the necessary resources. The Government made it clear that the cost of economic restructuring must be met primarily by the financial institutions to minimize both the burden on taxpayers and the risk of moral hazard. Its fiscal support will be provided only to (i) supplement the institutions' own restructuring and financing plans and (ii) purchase NPLs, recapitalize viable institutions, and pay off deposits, but only if the self-rescue plans of ailing institutions are successfully implemented. The needed resources are raised mainly by selling KAMCO and KDIC bonds, whose interest payments are absorbed by the budget.

NONPERFORMING LOAN ESTIMATES

The main task of financial sector restructuring is the disposal of NPLs. As of the end of March 1998, total NPLs of all financial institutions amounted to W112 trillion, consisting of W87 trillion for banks and W25 trillion for nonbanks, which are the basis for the financial restructuring plan. These include "precautionary" loans of W55 trillion (Table 5).

The Government targeted W100 trillion worth of NPLs for immediate disposal as of March 1998, including the core NPLs, bad loans, and a portion of the precautionary loans that had turned bad. The estimated total market value of NPLs was only 50 percent of their book value. Therefore, the realized loss borne by financial institutions will be approxi-

Table 5: **NPLs of Financial Institutions (W trillion)**

Loan Classification	March 1998		June 1998		September 1998		December 1998	
	Banks	All FIs	Banks	All FIs	Banks	All FIs	Banks	All FIs
Bad loans[a]	38.9	56.5	40.0	63.5	35.0	64.0	33.6	60.2
Precautionary loans[b]	48.3	55.5	60.9	72.5	63.6	71.2	63.4	70.9
Total NPLs[c]	87.2	112.0	100.9	136.0	98.6	135.2	97.0	131.1

FIs = financial institutions, NPL = nonperforming loan.
[a] Sum of estimated loss, doubtful and substandard loans.
[b] Collateralized loans with three to six months' interest payments in arrears. The loan classification standards were changed on 1 July 1998: (i) substandard or lower—interest payments in arrears from six to over three months and (ii) precautionary—from three to six months to one to three months interest in arrears.
[c] These numbers do not include NPLs purchased by KAMCO.
Source: Financial Supervisory Service.

mately W50 trillion, which will eventually result in the erosion of their capital base. The rest of the NPLs will be resolved through Government fiscal support.

The targeted W100 trillion worth of NPLs are to be disposed of in two ways:

- Financial institutions will dispose of half by either selling off collateral or calling in loans.
- KAMCO will purchase the remaining half at an estimated market price of 50 percent of book value. In accordance with the IMF agreement, KAMCO is to dispose only of NPLs of financial institutions whose rehabilitation plans are approved by FSC.

As of December 1998, total NPLs amounted to W131 trillion, with bad loans at W60 trillion and precautionary loans at W71 trillion. The Government asserted that the new levels were within a reasonable range and that it was not necessary to change the restructuring plan. Nonetheless, due to the tightened loan classification standards effective 1 July 1998, a substantial portion of precautionary loans was downgraded to the "substandard" category, thereby increasing bad loans to W65.4 trillion at the end of March 1999. Furthermore, the quality of some of the precautionary loans may deteriorate over the course of the ongoing corporate restructuring process. On the other hand, the corporate workouts may significantly reduce the amount of precautionary loans. Moreover, FSC's strict supervision will diminish the likelihood that new NPLs will develop.

FISCAL SUPPORT FOR FINANCIAL RESTRUCTURING

The first round of financial sector restructuring, which ended on 30 September 1998, aimed at revitalizing the troubled banks. As noted before, the Government's basic principles for fiscal support are the following:

- It will not support financial institutions unless they exert appropriate self-rehabilitation efforts and practice fair loss sharing among concerned parties.[11]
- Fiscal support should be sufficient to make troubled financial institutions solvent.

On 20 May 1998, the Government announced it would spend W64 trillion until June 1999 to facilitate financial restructuring. This amount is approximately 15.2 percent of the 1997 GDP of W421 trillion,[12] which is burdensome compared to that of other countries that have experienced a similar financial crisis.[13] Of the W64 trillion, W32.5 trillion are for the purchase of NPLs while W31.5 trillion are for recapitalization and deposit payment of ailing institutions. By end-1998, W40.9 trillion were injected into the banking sector, of which W19.4 trillion were spent in the last three days of September alone, presumably to meet the deadline for completing the first round of bank restructuring.

As shown in Table 6, W44 trillion worth of bad loans were purchased from banks, merchant banks, and surety insurance companies with the W19.9 trillion KAMCO bonds by end-1998, amounting to 45

Table 6: Schedule of Fiscal Support (W trillion)

Item	Nov 1997–Aug 1998	Sep 1998	Oct-Dec 1998[a]	Total	Remaining Fund
Book Value of Nonperforming Loans[b]	16.0	23.0	5.0	44.0	27.0
Fiscal Support:					
Purchase of Nonperforming Loans[b]	8.6[c]	9.1	2.2	19.9	12.6
Capital Injection	1.5[d]	3.3	1.5	6.3	10.5[e]
Loss Coverage	6.6[f]	7.0	1.1	14.7	
Total	16.7	19.4	4.8	40.9	23.1

[a] For the second round of restructuring of special banks, a few financially sound banks, merchant banks, securities companies, and trust companies.
[b] Nonperforming Loans are substandard or lower loans.
[c] Purchases from 30 commercial and specialized banks, 30 merchant banks, and 2 surety insurance companies.
[d] Capital injection into Seoul Bank and Korea First Bank.
[e] Includes both capital injection and loss coverage.
[f] Deposit payment for suspended merchant banks, mutual savings and finance companies, and credit unions.
Source: Financial Supervisory Commission.

percent of the book value. About W25 trillion to W30 trillion worth of NPLs will be purchased from specialized banks, financially sound banks, merchant banks, securities companies, and mutual savings and finance companies for W12.6 trillion in 1999. Additional NPLs in the future will also be purchased by KAMCO.

Banks that acquired ailing banks or merged with other banks received support for recapitalization and loss compensation. KAMCO purchased the NPLs of five acquired and acquiring banks, and injected capital into them to prevent the deterioration of the acquiring banks' BIS CAR. New banks created by the merger of a sound bank and troubled bank were given enough fresh capital to bring their BIS CAR up to standards of sound banks. New banks resulting from a merger between two troubled banks were injected with capital sufficient to bring their BIS CAR up to 10 percent. The total support for recapitalization and loss coverage up to December 1998 amounted to W6.3 trillion and W14.7 trillion, respectively.

The Government used public bonds to finance the projected fiscal support. KAMCO issued W32.5 trillion worth of bonds to purchase NPLs amounting to over W50 trillion. KDIC issued W31.5 trillion worth of bonds for equity participation and for compensation of the differential between liabilities and assets. All the issued public bonds were provided "in kind" to the ailing institutions rather than sold on the market in order to minimize a possible crowding-out effect. Considering that banks have enough liquidity after the financial crisis and that BIS risk weight of public bonds is nil, not many bondholders are expected to cash in. The Government guarantees the bond issues and will bear interest costs, which were estimated to be W3.6 trillion for 1998, and W8 trillion to W9 trillion for 1999, but are expected to decrease greatly with a sharp drop in interest rates.

Most of the fiscal support is expected to be recouped through (i) sale of collateralized assets, (ii) divestment of acquired equity shares of financial institutions, and (iii) liquidation of insolvent financial institutions. Thus the burden on taxpayers will be limited to the interest costs related to public bond issues, which will correspondingly decline over time. In addition, asset-backed securities will be issued against collateral to give KAMCO flexibility in its financing of the disposal of NPLs.[14]

Institutions eligible for NPL purchase are those planning a merger or whose rehabilitation plans have been approved by FSC. These included (i) five resolved and five acquiring banks, (ii) four merged banks, (iii) nine banks under a self-rehabilitation plan, and (iv) two merged surety insurance companies. Eligible bad loans are those classified as "substandard," with interest payments of more than three months in arrears.

Reshaping the Institutional Framework

Financial sector restructuring is crucial for economic recovery. Swift and prudent reform requires an institutional framework to coordinate and monitor the reform process. To this end, major financial reform bills were passed to provide a legal basis for required institutional reforms.

On 29 December 1997, the National Assembly passed a package of 13 long-awaited financial reform bills designed to facilitate financial restructuring, improve prudential regulation, and accelerate capital market liberalization. The package included bills to correct the financial market's built-in inefficiency by (i) enhancing the independence of the central bank, (ii) establishing a neutral consolidated FSC, and (iii) liberalizing foreign ownership of Korean securities. Measures (i) and (ii) implied a shift from a financial policymaking structure monopolized by MOFE to a decentralized one with a check-and-balance system. The passage of the package signaled the end of Government-controlled financial resource allocation and provided the legal basis for financial reforms.

THE CENTRAL BANK

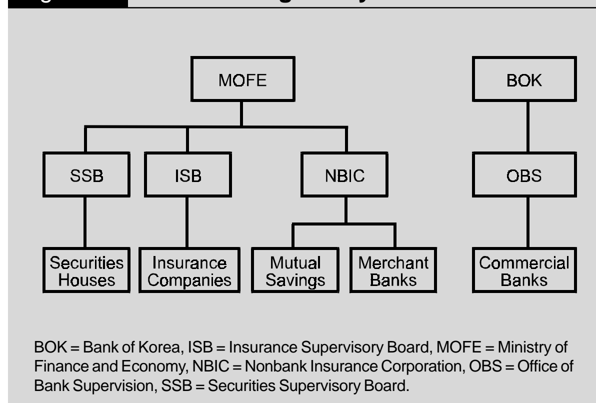
The new Bank of Korea Act substantially enhances the independence of the central bank. The BOK governor, previously appointed by MOFE, is now appointed by the President upon the recommendation of the State Council. Moreover, the governor, instead of the minister of finance and economy, now chairs the Monetary Board, which is the supreme policymaking body of BOK. The previous objectives of the central bank—maintaining the stability of currency value and the soundness of the banking and credit system—are replaced by a new objective of maintaining price stability. Consequently, the Monetary Board is now expected to carry out more advanced central banking for the unified goal of price stability. Responsibility for supervising the banking industry has been transferred to FSC.

A CONSOLIDATED SUPERVISORY BODY: THE FINANCIAL SUPERVISORY COMMISSION AND THE FINANCIAL SUPERVISORY SERVICE

An informal and close relationship between financial institutions and regulatory organizations developed due to excessive Government influence. The Government has a significant regulatory role in its own right and therefore has control over regulatory agencies. It also often appoints the management of financial institutions from the ranks of former regulators. This process, known as parachute appointment, has hindered the development of a proper independent regulatory system.[15] Although parachute appointment is less prevalent in the 1990s than it was in the 1980s, it is still an issue of great concern, especially in the nonbanking industry. Regardless of the eventual post-crisis regulatory structure, this appointment method should be stopped to enable regulators to do their job independently.

Before the crisis, regulatory responsibility was divided between BOK and MOFE, with BOK supervising commercial banks and MOFE supervising NBFIs.[16] Figure 1 shows the regulatory structure before the crisis.

Figure 1: **Precrisis Regulatory Structure**



BOK = Bank of Korea, ISB = Insurance Supervisory Board, MOFE = Ministry of Finance and Economy, NBIC = Nonbank Insurance Corporation, OBS = Office of Bank Supervision, SSB = Securities Supervisory Board.

The dual nature of the regulatory structure and inadequate coordination resulted in inconsistent and ineffective supervision. For example, the Office of Bank Supervision (OBS), which was an internal organization of BOK, supervised commercial banks. The trust business of commercial banks, however, was under

the supervision of MOFE, which also had the authority to grant and revoke bank licenses. Lack of coordination led both BOK and MOFE to neglect corporate governance of banks. Shareholders and depositors were not subject to market discipline. Due to the lack of corporate governance, the profitability of Korean banks was quite low even before the crisis.[17] Low profitability certainly contributed to the banking crisis.

Merchant banks were regulated and supervised solely by MOFE. Since MOFE had fewer than 10 officers to supervise 30 merchant banks, it delegated supervision to the Nonbank Deposit Insurance Corporation. This system of delegated supervision turned out to be ineffective.

Sensitive to criticism since the early 1980s that the financial supervisory system was inefficient and corrupt, the Government established FSC in April 1998 under the Office of the Prime Minister to function as a neutral and independent agency. FSC took over the supervisory power of MOFE, which the ministry had de facto exercised through four legally independent agencies. The four agencies—the Bank Supervisory Board, Securities Supervisory Board, Insurance Supervisory Board, and Nonbank Supervisory Board—were merged in January 1999 into the Financial Supervisory Service (FSS), which is under the direct supervision of FSC. FSC also established a subcommittee, the Securities and Futures Commission (SFC), which is responsible for the orderly functioning of the financial market. FSC plays a key role in restructuring the financial and corporate sectors. Under the new structure, BOK no longer has supervisory power over the banking sector, although it has limited bank inspection power. For example, it may request FSS to inspect certain financial institutions. It may also ask FSS to do so together with BOK personnel, if necessary.

The reasons for consolidating supervisory powers are the following:

- Divesting MOFE of its supervisory power is a necessary condition for the functioning of a neutral and independent supervisory body.
- Rapid financial deregulation requires a consolidated supervisory body. Check and balance among MOFE, FSC, and BOK is expected to help the industry become competitive and viable.

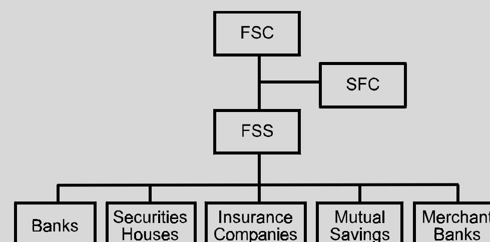
Consolidation, however, is not complete. MOFE still holds legislative authority over any opening, closing, and merger of financial institutions. FSC's supervisory role should include authorization. A regulatory structure is required to preserve the integrity of the financial structure and the soundness of the real economy.

In planning its own organizational structure, FSC studied (i) the entity-process model, (ii) the process-entity model, and (iii) the objective-entity model.[18] In the entity-process model, the primary organization is based on the various entities in the financial sector, such as insurance, banks, and securities, while authorization or supervision plays a secondary role. This model is useful for supervising a wide variety of institutions, but its secondary emphasis on processes makes it difficult to maintain consistency across institutions. Canada and Germany follow this model.

The process-entity model places primary emphasis on processes rather than entities. It also allows effective supervision of a variety of entities and maintains consistency across institutions, but its secondary emphasis on entities makes it difficult to supervise the overall soundness of institutions, or to specialize in institutions. The UK follows this model.

Finally, the objective-entity model is organized around objectives, such as customer protection, an orderly financial market, and sound financial institu-

Figure 2: Postcrisis Regulatory Structure



FSC = Financial Supervisory Commission, FSS = Financial Supervisory Service, SFC = Securities and Futures Commission

tions. It has the advantage of maintaining consistency based on objectives. However, it has the same drawbacks as the process-entity model. Australia has adopted this model.

FSC's organizational structure was closest to the entity-process model. After evaluating the three models, FSC finally adopted the process-entity model.

A CONSOLIDATED DEPOSIT INSURANCE: KDIC

An important reform is the strengthening of deposit insurance. KDIC, the consolidated deposit insurance body, was established under MOFE in December 1997. Originally set up for commercial banks in 1996, it was expanded to serve all the financial institutions by absorbing five other separate insurance funds.[19] It does not have supervisory power over the institutions, although it has a limited joint inspection power with FSS. Due to its short history, it does not have enough reserves and it issues bonds to finance itself. Its authorized bonds amount to W31.5 trillion, which are used for capital injection and deposit-loss coverage of ailing financial institutions.

In November 1997, MOFE announced that the Government would fully guarantee the principal and interest of all deposits until end-2000 to prevent the collapse of the banking system. The announcement set off a serious moral-hazard problem: ailing banks offered higher deposit rates to prevent liquidity shortage, and depositors selected banks offering higher deposit rates without evaluating the banks' soundness because all their deposits were fully protected by the Government. The Government thus scaled down the protection level to W20 million for deposits made after 25 July 1998, which was a step toward a market-driven restructuring of the financial system.

KOREA ASSET MANAGEMENT CORPORATION

KAMCO was established in 1962 to manage bad loans of the State-run Korea Development Bank. On 24 November 1997, it completed a major reorganization effort to carry out the acquisition and disposition of NPLs more efficiently under the control of MOFE. It adopted the divisional structure of the Resolution Trust Corp. When it was reorganized, NPLs amounted to W38 trillion and the Nonperforming Asset Management Fund was W10 trillion. In May 1998, the fund size was increased to W32.5 trillion. The bailout fund is used to buy NPLs of financial institutions and assets of ailing business firms. KAMCO finances itself by issuing W32.5 trillion worth of its own bonds and by disposing purchased assets through direct sale of these assets or of asset-backed securities. KAMCO bailout funds and KDIC funds constitute the fiscal support needed to facilitate the financial sector restructuring process.[20]

Deposit Insurance System

Major changes have been made in the Depositor Insurance Law, such as reducing the amount of guaranteed principal to prevent moral hazard for depositors and financial institutions. The revised deposit insurance system now applies to almost all financial institutions, including merchant banks, insurance companies, securities companies, mutual funds, and credit unions. Thus deposit insurance covers all financial institution deposits except investment products, such as merit-based trusts, benefit bonds, and trust accounts.

The new deposit insurance system divides deposits into three categories: (i) protected, (ii) temporarily protected until 2000, and (iii) not protected (Table 7). For example, only the principal is insured for accounts of W20 million or more opened or deposited after 1 August 1998. Repurchase agreements (RPs) issued by banks and securities houses after 25 July 1998, and fidelity or surety insurance policies entered into after 1 August 1998, are not insured. The Government is studying the feasibility of a variable-rate insurance system based on risks of insured financial institutions. It is expected that a variable insurance premium rate will be applied once the study is done.

Prudential Regulations

Prudential supervision prevents financial institution managers from exposing their institutions to shocks

Table 7: Deposit Protection

Financial Institution	Always Protected	Temporarily Protected Until 2000	Not Protected
Banks	Deposits, installment savings, retirement funds, principal protected trusts	Foreign deposits, negotiable CDs, development trusts, bonds issued by banks, RPs issued before 24 July 1998	Merit-based bonds,[a] RPs purchased after 25 July 1998
Merchant banks	Receipt notes, collateralized notes, cash management accounts		Noncollateralized notes, RPs
Insurance companies	Individual insurance contracts, corporate insurance in the form of retirement funds, retirement insurance contracts	Corporate insurance besides retirement funds, guaranteed insurance contracted before 31 July 1998	Guaranteed insurance contracted after 1 August 1998
Securities companies	Deposits, futures, option deposits, money market funds	RPs purchased after 24 July 1998	Accounts used for tax-deferral purposes
Mutual savings and finance companies	Deposits, installment savings, receipt notes		
Credit unions	Deposits and investments approved by credit unions		

CD = certificate of deposit, RP = repurchase agreement.
[a] Merit-based bonds are trust products whose yields are based on performance.
Source: Korea Deposit Insurance Corporation.

that could jeopardize their solvency (Santomero 1997). As part of their oversight functions, regulators get information through examinations. They often experience difficulty, however, in detecting misbehavior of managers because of limited time and funds. It is therefore necessary to incorporate a disincentive system into financial institutions that will prevent managers from taking excessive risk. Capital adequacy requirements are examples of disincentives.[21]

FSC and MOFE have made significant efforts to improve the institutional setup of the financial system in order to prevent another crisis. Crisis prevention demands a healthy domestic financial system, the preconditions of which are (i) confidence of depositors, (ii) sound risk management, and (iii) prudential regulation.

Since the crisis, the Government has established a system of prudential regulation and supervision for the financial sector. The new system includes the following measures: (i) strengthened PCA system, (ii) introduction of new banking sector disclosure items, (iii) transparent accounting system with accurate and conservative portfolio valuation and classification, (iv) enforcement of liquidity management relative to foreign exchange risk, and (v) transparent treatment of trust accounts.

PROMPT CORRECTIVE ACTION SYSTEM

In the US, the PCA system was designed to limit regulatory forbearance by making intervention less discretionary and more timely in order to reduce failure costs. Using the US system as a benchmark, FSC introduced a PCA system for almost all financial institutions in June 1998. Under the system, the Government will monitor quality control, on a quarterly basis, of financial institutions with a BIS CAR of less than 4 percent. In evaluating assets and liabilities, FSC will decide whether or not to order these institutions to submit management improvement schemes.

The most important indicators in the PCA system are the following: (i) BIS CAR for banks, (ii) operational net capital ratio for securities companies, and (iii) solvency margin ratio for insurance companies. Assessment of capital adequacy standards will be facilitated by bringing up to international standards (i) asset classification standards, (ii) provisioning requirement standards, and (iii) accounting principles. The PCA system is necessary to gain independence from politicians. It is not yet clear, however, whether FSC will apply the new standards strictly during the crisis period, since strict application of the PCA system might result in the closing of too many financial institutions. Financial institutions' difficulties are mostly due to systemic causes rather than mismanagement by individual institutions, and the PCA's role is limited.

BANKING SECTOR DISCLOSURE

Disclosure of reliable information enables market participants to assess the condition and performance of banks and allows market discipline to function. Market discipline complements the work of regulators, resulting in a stable financial system.

In April 1998, FSC added to the required disclosure list new items necessary for judging management conditions and which meet international accounting standards, such as size of NPLs, risk management measures, and assets by country. In addition, the first half-year preliminary audit results have become a mandatory disclosure item. Banks are also required to disclose when large loans become nonperforming and if they lose a lawsuit.

MARKET VALUE ACCOUNTING

Previously, securities (private placements and commercial paper held by trust accounts) were treated like loans, with no mark-to-market option. In June 1998, the Government introduced mark-to-market for securities in order to make banks' accounting systems transparent. Securities are now classified by maturity rather than currency denomination. Thus marketable securities must be valued quarterly at their market rate.

This measure is a big step toward full market-value accounting, represents a trend toward more market-driven information, and is expected to force Korean banks to respond more quickly to market conditions.

IMPROVEMENT IN CALCULATING BIS CAPITAL ADEQUACY RATIO

In January 1999, the calculation of BIS CAR was changed such that loss provisions for loans, except for normal or precautionary, are deducted from Tier-2 capital. In addition, some assets related to the promised yield liabilities in the trust account are treated as assets in the bank account.

PRUDENTIAL RULES FOR FOREIGN EXCHANGE LIQUIDITY AND EXPOSURE

In July 1998, the Government changed the regulations to improve risk management for short-term foreign currency liabilities. Applying the risk management technique to gaps between asset and liability exposures, financial institutions are now required to report maturity mismatches in the following categories: (i) 1-7 days, (ii) 7 days to 1 month, (iii) 1-3 months, (iv) 3-6 months, (v) 6 months to 1 year, and (vi) over 1 year. Commercial banks started using this method in their July 1998 reports. Another new regulation stipulates that the ratio of current assets to current liabilities (90 days to maturity) must be at least 70 percent. A new comprehensive risk management system sets exposure limits for each country based on international credit ratings.

TRUST ACCOUNTS

Rules providing for full disclosure to trust beneficiaries went into effect on 1 January 1999, precluding any possibility of loss guarantees by managing banks. All trust accounts with guarantees are placed on a special balance sheet for supervisory and accounting purposes. For capital adequacy purposes, assets in such accounts are weighted at 50 percent for all

of 1999, and at 100 percent after 1 January 2000. The new restrictions are applied to all trust accounts, ensuring separation of the accounts for management and accounting purposes.

Loan Classification Standards and Provisioning Requirements

In July 1998, the Government made loan classification standards and provisioning requirements more conservative in line with international standards. Loans in arrears for three months or more are now classified as substandard or lower, and loans in arrears for one to three months are classified as precautionary (Table 8).

FSS uses new loan classification procedures for its semiannual auditing of bank loans. Its evaluation incorporates the findings of diagnostic reviews and ensures that classifications by management, as well as reviews by examiners, fully reflect the debtor's capacity to repay, and not simply past performance. On 1 July 1999, the loan classification system will become even more conservative, with expected future performance a criterion for classifying an asset as problematic.

OBS, which was merged into FSS on 2 January 1999, also tightened provisioning requirements on 1 July 1998 to meet international standards. Requirements for precautionary loans have been raised from 1 to 2 percent. Provisioning requirements for substandard loans, doubtful loans, and estimated losses are now 20, 75, and 100 percent of each category's loans, respectively. For CPs, guaranteed bills, and privately placed bonds belonging to trust accounts, provisioning requirements are now in effect for the first time. As for restructured loans, which have been put in the precautionary or substandard category, FSS will determine how they are to be classified.

Policy Issues

Prudential Regulations

Prudential regulations and supervision are the primary policy concerns, for which IMF and World Bank have specified some issues. The issues and related developments are as follows:

- FSC should be given operational independence and adequate resources. These depend on many factors, two of which are of utmost importance: (i) authority to revise and write laws;[22] and (ii) organizational structure and staffing of FSS, which was established on 2 January 1999.
- FSC needs to bring its regulations closer to international best practice as expressed in the Basle Committee's Core Principles:
  - Banks should deduct from Tier-2 capital all provisions except those with respect to assets classified as normal and precautionary in line with Basle Principle 11, which prohibits including provisions on loans that are substandard or lower.[23] With the effectivity of this measure on 1 January 1999, Korean banks' BIS CAR was slightly lowered. Facing a lowered BIS CAR, Korean banks are expected to decrease loan assets, which are the most risky assets, in order to increase BIS CAR. This will lead to a more severe credit crunch induced by the banks' capital adequacy problems.[24] Bank lending contracted in the US when the regulatory agency there stiffened capital adequacy requirements in the early 1990s.

Table 8: Changes in Loan Classification Standards

Period of Overdue Payment	Precrisis Classification	Current Classification
1-3 months	Normal	Precautionary
3-6 months	Precautionary	Substandard or Doubtful
Longer than 6 months	Substandard or Doubtful	Substandard or Doubtful

Source: Financial Supervisory Service.

– On 1 January 1999, assets in trust account with guarantee were weighted at 50 percent in calculating risky assets, which again lowered BIS CAR. Korean banks have two types of deposits: bank deposits and money in trust. There are two types of money in trust: fixed-yield-based (guaranteed) and performance-based (not guaranteed). The fixed-yield-based money in trust is de facto deposit, which is why the Government guarantees it.

– Trust accounts should be separated from bank accounts for management and accounting purposes. In the past, the Chinese wall between bank and trust accounts was so weak that management had the opportunity to misbehave. The Chinese wall as well as disclosure will be strengthened through a measure to be introduced on 1 January 2000, pertaining to separation of accounts in terms of accounting and management.

– Forward-looking criteria (FLC) of loan classification will be applied beginning 1 July 1999.[25] Once this so-called international standard is followed, total bad loans of banks will increase sharply and banks will need bigger loan-loss provisions. For example, as of end-1998, banks' total bad loans and precautionary loans were W33 trillion and W63 trillion, respectively. With strict application of FLC, however, at least 50-70 percent of precautionary loans are expected to deteriorate into bad loans. In this case, total bad loans are estimated to range from W64 trillion to W77 trillion.

- To ensure that prudential rules and requirements for foreign exchange liquidity and exposure are met, banks should maintain internal liquidity control systems based on a maturity ladder approach.[26]
- The same set of prudential regulations governing commercial banks should also apply to specialized and development banks beginning in 1999. FSC examined the Korea Development Bank, Export-Import Bank of Korea, and Industrial Bank of Korea on 31 March 1999. It should recommend remedial actions.
- The limit of 25 percent of equity capital for lending to large shareholders and their affiliates applies to merchant and commercial banks. All connected lending was audited and disclosed beginning in 1999.
- On large exposures, MOFE submitted an amendment of the general banking law to redefine single-borrower and group exposure limits. Beginning January 2000, these limits will be reduced from 45 to 25 percent of total capital, respectively.
- FSC needs to monitor cross-guarantees, which should be completely eliminated by the end of March 2000. The top five *chaebol* (conglomerates) were required to eliminate all inter-subindustry group cross-guarantees by end-1998.
- With the unification of supervisory organizations in April 1998, FSC needs to enhance consolidated supervision to encompass the full range of banking risk, including foreign exchange risk, whether carried on in the principal bank or in its foreign branches and domestic affiliates and subsidiaries. FSC has to be internally integrated to provide strong prudential supervision.
- Regulatory bodies should improve banking disclosure, auditing, and accounting standards to fully comply with the minimum requirements of the International Accounting Standard. FSS should make banks' reporting requirements more stringent so that supervisors will be better forewarned of potential problems.

Resolution of Nonperforming Loans

Two policy issues are related to the resolution of NPLs: (i) how to finance them and (ii) how to recover the loss. The amount of financing depends on the size and quality of NPLs, while recovery relates to the management of NPLs. Both largely depend on the state of the economy itself.

The size of NPLs is a moving target. It changes according to the standards of loan classification used. Under stricter standards, NPLs are bigger. The international standard became effective on 1 July 1999. As of the end of June 1998, FSC estimated that NPLs, including precautionary and internationally substandard loans, amounted to W197 trillion, of which precautionary credit was W79 trillion, and credit that was substandard and lower was W118 trillion.

Assuming that NPLs amount to around W200 trillion, by international standards, W32.5 trillion of public funds are insufficient to buy all the NPLs of financial institutions. If the purchase price of loans that are substandard and lower is around 40 percent of their face value, then W47 trillion, or W14.5 trillion more than allotted, is necessary to buy them. The Government should either increase the funds or use the allotted funds in a different way.

KAMCO remains the sole asset management company in the country. It has been criticized as ineffective in bad-asset management.[27] Two banks are attempting to establish their own "bad banks" because they believe they can manage bad assets more effectively than other institutions, including KAMCO. From end-June to end-September 1998, 22 commercial banks resolved only W445 billion of NPLs. NPLs that KAMCO did not purchase are estimated to amount to W30 trillion.[28] They need to be resolved by individual banks. The issue is whether or not to give tax and legal incentives to individual banks so they can establish their own bad banks and resolve NPLs by themselves.

Deposit Insurance System

Deposit insurance was introduced to lower exit barriers. Originally, it covered deposits of depository institutions up to W20 million of principal. However, to restore depositors' confidence after the IMF program was implemented, the Government provided an unlimited blanket guarantee on pseudo-deposits and deposits. Some ailing financial institutions took advantage of the blanket coverage by offering high-interest deposits.

A wide range of financial products of all institutions are covered by deposit insurance. It was inevitable that the Government would adopt a wide safety net since it needed to prevent massive bank runs and financial turmoil in the wake of the financial crisis. Considering that only deposits or similar financial products of deposit institutions are covered in developed countries such as Canada, Japan, and US, the coverage in Korea is too wide.

To lessen moral hazard of troubled financial institutions, the Government modified the coverage of deposit insurance from full to limited. However, this remedy only partially cures the moral-hazard problem. The Government needs to introduce a risk-based insurance premium system to deter high-risk taking by ailing financial institutions. In other words, a variable-rate premium reflecting risks of insured banks should replace the fixed-rate premium. The technical issue is how to determine risks of individual banks.

It is obvious that wide coverage by deposit insurance may have a negative effect on the economy. For example, the autonomy of financial institutions may be undermined since the Government has to intervene in the internal management of banks to decrease the risk of bankruptcy. The wider the range of insurance coverage, the bigger the potential burden of the Government.

Enhancing Competition

The policy issues in the area of enhancing competition are (i) how to lower barriers of entry and exit and (ii) how to set up uniform regulations for different types of financial institutions.

To reduce entry barriers, the Government permitted foreign financial institutions to buy local banks. There is no limit on foreigners' equity holdings. Korea First Bank and Seoul Bank will be sold to foreign financial institutions. To decrease exit barriers, the Government introduced the deposit insurance sys-

tem. To make regulations uniform, it organized FSS to absorb other agencies.

As of end-1999, the Government successfully completed its negotiations with a US financial consortium (Newbridge Capital) to sell its shares in Korea First Bank, which was nationalized on 31 January 1998. However, the Government and the British-owned Hong Kong and Shanghai Bank terminated their negotiations on the sale of Government shares in Seoul Bank at end-August 1999. The Government will seek to attract a management team for the bank through open international recruitment. With the sale of Government shares, foreign banks will increase their market share by about 8 percent. In addition to foreign banks, several joint venture banks will emerge as major players, enhancing competition.

The policy issues relating to entry barriers are whether Government will permit (i) merchant banks and mutual savings to become commercial banks and (ii) domestic investors to become major shareholders of commercial banks. Exit barrier policy issues are (i) how strictly FSS will apply PCA and (ii) what kind of loss-sharing scheme will be used when there are exiting institutions. Finally, the uniform regulation issue is how well FSS will perform as a function-based instead of institution-based organization.

Improving Financial Governance

The Government's goal is to make the financial industry strategic in the 21st century. Profitability must be enhanced. Unprofitable banks cannot be competitive under any circumstance. Maximizing shareholder value is a first step toward making banks profitable. For shareholder value maximization to become a priority for banks, ownership and corporate governance structures need to be modified to strengthen shareholder rights. The policy issue is how to establish ownership and corporate governance structures for banks to be profitable.

The ownership issue is a puzzle. Before the crisis, banking laws stipulated that there could be no controlling shareholders in Korean banks. In other words, ownership of banks was limited. Since the crisis, the banking law has been revised to allow foreign investors to acquire bank shares above 4 percent. Since this law has been criticized for treating foreigners more favorably than domestic investors, MOFE attempted to revise it so as to treat Koreans and foreigners equally. The proposed amendment permits domestic investors, including the chaebol, to have controlling shares of commercial banks. The 4 percent ownership restriction is meant to make it possible for any capable entity to own and manage a bank. Some stakeholders worry, however, that the chaebol will be the only beneficiaries of the new rules. Faced with strong opposition, MOFE failed to sell the idea and created a task force to produce yet another proposal. The latest contains an additional condition for chaebol to become controlling shareholders: they have to put more than 50 percent of their equity capital in their controlling bank within two years. The issue is how to lower the ownership barrier while avoiding exploitation of the banks by their owners.

Corporate governance in Korean banks had been neglected until the banking crisis. One of the most important issues is board governance, of which five basic matters must be addressed: (i) board composition, (ii) role of directors, (iii) structure of the board, (iv) board meetings, and (v) performance incentives and evaluation. Boards of banks are composed mainly of executive rather than nonexecutive directors. Executive directors should hold less than one third of the board seats. Banking laws mandate that 70 percent of nonexecutive directors should be appointed by major non-chaebol shareholders and the rest appointed to represent the public interest. The law should be revised so as not to restrict the composition of the board.

Nonexecutive directors should have both strategic and monitoring functions. The board should be management's partner in shaping corporate strategy. It must also monitor management's performance

against key strategic milestones. It should establish long-term performance measures that focus on the creation of shareholder value. Management should report quarterly to the board on performance against key indicators. FSC is trying to introduce US-style board governance into Korean banks, such as Hanvit, through templates. Nonexecutive directors, however, are rare and they may not perform their expected roles.

Bank Restructuring

Restructuring will consolidate the financial industry by decreasing the number of banks and financial institutions. The financial industry will become a two-tier system, with big leading institutions and small following institutions as niche players.

According to FSC, three to five super banks will emerge. These universal banks, with an international scope across all product lines, will have two merits: (i) scope of economy and (ii) one-stop service for customers. Korean banks will move toward becoming universal banks in order to compete effectively against foreign universal banks. Legal impediments to introducing universal banks are (i) the need for permission from the holding company and (ii) regulations on business scope. However, these legal barriers will be eliminated in the near future. The banks will be key in setting interest rates. Aside from the major players, there will be numerous niche players, specializing in either customers or products.

As the corporate banking market becomes depressed, the consumer banking market will emerge as the biggest market in the country. In the past, manufacturers provided buyers with financing. Now, however, manufacturers are forced to improve financial soundness by decreasing their debt-equity ratio. Hence, banks can move into the durable-goods financing market, replacing manufacturers. Mortgage banking will also become more active as banks seek safer borrowers than corporations. The credit card business will also be another big segment of consumer banking.

As new, good-quality corporations withdraw from the lending market, banks will be forced to develop fee structures and to brush up on cash and risk management. Foreign banks are expected to hold their competitiveness in the fee business market.

Low profitability in the banking industry makes it difficult for Korean banks to recover from the banking crisis on their own. FSC makes Government assistance conditional on profitability improvements. Plans for profitability enhancement must be directed toward the following benchmarks: (i) return on assets—1 percent, (ii) return on equity (ROE)—15 percent, (iii) BIS CAR—10 percent, and (iv) efficiency ratio—60 percent.

The profitability of banks depends on many things, but the most important factors are (i) slope of the yield curve, (ii) NPL ratios, and (iii) efficiency ratios. The steeper the slope of the yield curve, the more profitable the bank. The difference between short-term and long-term interest rates is decided by the central bank, so it is not a control variable of the individual banks. NPL and efficiency ratios, however, are control variables and individual banks should keep them below certain levels in order to achieve decent ROE.

The banking sector has historically suffered from (i) poor asset quality, (ii) regulated interest rates, (iii) excessive competition for deposits, and (iv) poor asset-liability management, all resulting in low profitability.[29] Korean banks now face the "twin banking problem": worsening asset quality and undercapitalization. The domestic debt problem is characterized by bankruptcies of large business corporations triggered by overinvestment and highly leveraged financial operations. The consequence of overinvestment was deteriorating loan portfolios. Large NPLs have caused widespread fear of bank failures, which drives depositors toward the better-quality banks. The banks' need to meet BIS CAR prevents them from extending loans.

Before the financial crisis, there were 33 banks in the country—16 nationwide, 10 regional, and 7 specialized. With 5 banks shut down and 3 mergers, a

total of 25 banks remain—11 nationwide, 8 regional, and 6 specialized. Through its support of recapitalization efforts, the Government has become a controlling shareholder of some of the remaining banks. Korea First Bank and Seoul Bank have been Government banks since 31 January 1998. After their merger, Hanil Bank and Commercial Bank of Korea became de facto Government banks, since the money for their recapitalization came out of public funds. Other banks have also become de facto State banks as the Government was involved in their recapitalization process.

State ownership of banks is worrisome because Government officials seem not to be good bank managers. If Government intervention in the management of de facto State banks persists, the banks may find it difficult to recover. At the same time, funds will be channeled into the Government's pet projects regardless of their profitability, causing banking crises to recur.

The Government claims that so-called "hardware restructuring," which means closure or suspension of nonviable financial institutions, was mostly done by end-September 1998. It currently emphasizes "software restructuring," which means enhancing managerial efficiency of financial institutions. Reengineering and empowerment are the key words replacing restructuring. However, restructuring is not over yet: recapitalization and resolution of NPLs remain to be addressed.

Among the many banks which need Government assistance in recapitalization are Hanvit Bank, Korea Exchange Bank, Korea First Bank, Seoul Bank, and Chohung Bank. Around W2 trillion may be needed by each bank to meet BIS CAR after 30 June 1999. The Government, however, decided not to increase public funds for recapitalization, but instead to use the retrieved funds.

Resolving the Credit Crunch

At the onset of the crisis in November 1997, the Government's first task was to overcome the foreign exchange crisis by securing the supply of foreign funds. It tried to obtain financial assistance from international financial institutions and to extend the maturity of eligible short-term bank debts. It also adopted tight monetary and fiscal policies to squeeze domestic absorption and to prevent capital flight. Exchange and interest rates skyrocketed as a consequence, further burdening indebted domestic firms. As the Government started financial restructuring and requiring the banking sector to raise BIS CAR, most financial institutions halted new lending and even collected existing loans. The severe credit crunch in the financial and corporate sectors spilled over into the real sector, especially the illiquid but viable small and medium-size enterprises.[30] Bankruptcies occurred, and everyday about 10,000 people lost their jobs. The five biggest chaebol, however, had no difficulty finding financing.

To ease the credit crunch plaguing the most vulnerable small and medium-size enterprises, $1 billion from the Asian Development Bank was injected into credit-guaranteed institutions in January 1998. In April, small and medium-size corporations received maturity extensions on their loans also to alleviate the credit crunch, and $1 billion in World Bank funds to bolster raw-material imports. The Government started to lower interest rates by supplying more liquidity and speeded up financial restructuring as it realized that the credit crunch would not be resolved without sound banks. These measures helped somewhat, although many small and medium-size enterprises still have difficulty raising funds without collateral.

Policy Recommendations

Prudential Regulations

There are three ways by which FSC may become more independent:

- It may merge with the Department of Financial Policy (DFP) in MOFE. The new body may be called the Department of Finance. It would have the authority to revise and write laws, and to lead and monitor FSS.

- DFP may be transferred to FSC.
- MOFE may transfer authority to FSC to revise and write laws, without organizational reshuffling.

The third alternative is easiest because it does not involve organizational change. However, DFP would still need to be restructured heavily. FSS should recruit professional regulators and examiners who are capable of enforcing international best-practice regulations. The unified supervisory organization needs to enhance consolidated supervision through function-based organization.

To enforce prudential regulations, FSC should enact measures specified under the agreement with IMF. The establishment of the international loan classification standard is delayed. Issues such as corporate governance of financial institutions and consumer protection have yet to be addressed. In order to improve corporate governance, banking laws must be modified to strengthen the function of the board of directors, which is expected to enhance the accountability of management.

Specific policy recommendations are the following:

- FSS should bring its regulations closer to international best practice as expressed in the Basle Committee's Core Principles. For example, it may set up a special task force under the Department of Supervision Policy in order to find out the precise impact of these measures.[31]
- Trust business should be restructured in order to protect customers. Chinese wall as well as disclosure should be strengthened before the 1 January 2000 deadline. Money in trust may be transformed into mutual funds so that customers clearly see the risks involved.
- The forward-looking standard of loan classification should be applied immediately. It is already much delayed; to avoid further delay, FSS should take the necessary measures to recover BIS CAR.
- FSS should recruit professional risk managers as regulators and examiners to supervise foreign exchange liquidity.[32] FSC must require banks to implement asset liability management (ALM) to reduce risks related to liquidity, interest rates, and foreign currency. FSC needs to monitor ALM monthly.
- MOFE and FSC should coordinate more closely in applying the same set of prudential regulations to specialized and development banks. Or FSC should have full responsibility for specialized, development, and commercial banks.
- In addition to setting a limit of 25 percent of equity for large shareholders and their affiliates, individual banks need to improve the credit approval process to avoid connected lending. For example, independent loan officers must review applications for large loans, and approve them only when everybody agrees that they should be approved. To ease concentration problems in the loan portfolio, individual banks need to set internal guidelines. This is the starting point of credit risk management.
- FSS should be made into a function-based organization as planned.

All the policy recommendations stress the need for adequate staff and an understanding of the impacts of policy measures. Neither can be obtained without professional regulators and examiners equipped with the proper know-how and skills. Massive outside recruiting is required.

Resolution of Nonperforming Loans

Different approaches are needed to deal with future NPLs. In 1998, KAMCO had to purchase NPLs because there were no other buyers. As the economy weathered the foreign exchange crisis and market conditions improved dramatically, commercial banks have been able to resolve their NPLs by themselves.

The face value of NPLs bought by KAMCO ranges from W75 trillion to W85 trillion.[33] However, the peak level of NPLs is expected to be W118 trillion even by FSC estimates. This means that NPLs of W33 trillion to W43 trillion should be managed by

individual banks. Other alternatives to resolve NPLs may be considered, as follows:

- Permit the establishment of private asset management companies and offer incentives.
- Encourage systemic debt-equity swap between companies and banks.

The rationale for having private bad banks is that bank managers cannot focus on their usual business if they have to attend to large NPLs as well. Bad assets may be managed through (i) a centralized public asset management company, (ii) a decentralized private asset management company, or (iii) a combination of public and private asset management companies. The third alternative seems inevitable.

Establishing private asset management companies requires introducing a competitive bad-asset management system, which is more efficient than KAMCO's monopoly. The setting up of private bad banks is possible only when there are investors who are willing to put their money in a bad bank.[34] Government needs to make the investment environment attractive.

Deposit Insurance System

As the economy and financial markets recover, the Government should see to it that the deposit insurance system meets global standards and decreases moral hazard by ensuring the following:

- Insurance should cover only bank deposits and a limited range of NBFI deposits or deposit-like financial products.
- Deposit insurance premiums should be changed from fixed to variable as soon as possible.

Specific policy recommendations regarding the deposit insurance system are as follows:

- Modify the premium to avoid moral hazard by both banks and depositors.
- Enable the KDIC to pursue its goals.
- Limit insurance coverage to only a certain amount of bank deposits after the year 2000 in order to avoid moral hazard by depositors and to encourage market discipline.
- Set up a single index of bank risk that both banks and regulators agree upon. KDIC may introduce a variable rate premium system based on riskiness of individual banks. However, FSS, in collaboration with the banks, needs to provide a single risk measure which will serve as the system's base.
- Recruit professionals and examiners to staff KDIC.

Enhancing Competition

Entry barriers to NBFIs have been significantly lowered. However, banks still have high entry barriers. Government must permit merchant banks and mutual savings to become commercial banks and domestic investors to become major shareholders of commercial banks. The danger that the owners will exploit the banks can be eliminated if FSS supervises them, particularly in the area of connected lending.

Policy recommendations related to exit barriers are the following:

- FSC must strictly apply PCA. In order to avoid regulators' forbearance, the criteria of PCA must be transparent. The Government must shoulder the resolution cost.
- FSS must become a function-based instead of institution-based organization in order to achieve uniform regulation. As lines of demarcation among banking, insurance, and security businesses become blurred, uniform regulation will naturally follow.

Improving Financial Governance

Policy recommendations are as follows:

- The 4 percent ownership restriction should be eliminated and safety nets prepared in order to avoid exploitation of banks by their owners.
- Banks' board governance should be enhanced. The Government will be a main force in corporate governance of de facto State banks as it will influence nominations of chief executive officers (CEOs) and outside directors.

- The number of internal directors should be less than one third of the total number of board members, who should not exceed 12. The board should have committees on (i) board governance, (ii) audit, (iii) management development and compensation, and (iv) risk management.
  - The board governance committee should be responsible for all board processes, including (i) nomination of directors, (ii) committee assignments, and (iii) director turnover.
  - The audit committee should be responsible for maintaining a sound system of internal controls to safeguard shareholders' investments and banks' assets.
  - The management development and compensation committee should lead the process of evaluating top management.
  - The risk management committee should oversee risk management policies and processes.
- Board meetings should be held four to six times a year, each meeting lasting an entire day, properly documented, and allowing plenty of discussion time. Management must ensure that all directors are properly briefed on issues arising at board meetings.
- Director compensation packages should be designed to align the interests of directors with those of shareholders.
- Board evaluation should include annual assessment of the functioning of board processes and individual committees.
- All the processes related to board governance should be clearly communicated to shareholders. The board and top managers should make regular presentations to shareholders and give them the opportunity to ask questions and vote separately on important issues.

Bank Restructuring

The following policy measures are recommended:

- Acquiring banks, of which there are five, must be permitted to establish their own bad banks in order to deal with bad loans. Conditionally approved banks, of which there are seven, need sizable recapitalization in 1999. Foreign investors have suggested a good-bank/bad-bank split alternative where Government takes equity investment in a bad bank. The Government rejected this offer in 1998. However, it must reconsider this alternative. In 1999, Chohung Bank, Kangwon Bank, Chungbuk Bank, and Hyundai Merchant Bank were merged. The merged bank will be a de facto State bank as the Government will support its recapitalization. The Government must adopt measures similar to those applied to Hanvit Bank. KEB Bank and Peace Bank are expected to stand alone. After supporting recapitalization, the Government needs to enhance the value of the banks by requiring strict adherence to performance criteria.
- The Government should reprivatize State-owned banks as soon as market conditions permit. Meanwhile, it should hire management and write management contracts with CEOs. CEOs should be independent of Government, which should limit its role to seeing to it that CEOs keep the terms of the contract. CEOs may be recruited from overseas. Highly qualified foreign management teams may introduce efficient management and help regain the confidence of foreign investors.
- To allay market fears, the Government should clearly define the extent and duration of its role in bank management. Although immediate privatization would be best from a management standpoint, it will be several years before the banks are privatized. In the meantime, the Government should make a blueprint for the management of State-owned banks. One possibility is to appoint a CEO and managing directors through an independent nomination committee and write an explicit management contract. The Government would merely monitor observance of the contract.

- The Government should fully assist recapitalization, otherwise the banks will probably revert to their pre-recapitalized state, as did KFB, Seoul Bank, and Hanvit Bank. It needs to give top priority to allocating public funds for recapitalization.

Resolving the Credit Crunch

To resolve credit crunch in the financial market, credit risk should be decreased. The Government must adopt economy-boosting policies that will expand money supply and encourage Government spending. It should also complete financial restructuring and help banks recover as soon as possible. At the same time, banks must develop sophisticated techniques to correctly analyze the credits of enterprises and to determine how to supply loans in the most sound and efficient way. For example, commercial banks may set up a committee of professional investigative staff, whose members all identify themselves. Banks may also establish work-flow systems that devolve responsibility to lower staff members.

Notes

[1]Three banks—Dongwha, Dongnam, and Daedong—were suspended under a purchase and assumption (P&A) formula on 29 June 1998. Commercial Bank of Korea and Hanil Bank were merged.

[2]Two banks—Kyongki and Chung Chong—were suspended under a P&A formula on 29 June 1998.

[3]The most recent attempt was the establishment of the 31-member Presidential Commission for Financial Reform in January 1997. Its task was to prepare a set of comprehensive financial reform measures. Most of its recommendations were enacted into the 13 financial reform bills only on 29 December 1997, after the International Monetary Fund (IMF) letter of intent required it, which was too late to prevent the financial crisis.

[4]The series of bankruptcies started in December 1996, when Hanbo was unable to meet payments of the principal and interest on its loans, and was placed under court receivership. Then, in March 1997, Sammi Steel also sought court receivership, followed by the Jinro Group in April, the Daenong group in May, the Kia group in July, the New Core Group in November, and so on. Kia's bankruptcy in July created the greatest shock waves. By end-1997, 72 corporations listed on the Korea Stock Exchange had failed. More high-profile bankruptcies followed.

[5]Efficiency ratio is defined as ratio of noninterest expense to net operating revenue.

[6]MOFE, press release on the 4th National Economic Council Meeting (14 April 1998).

[7]"Precautionary" and "Substandard" loan classifications are based on new standards. Asset size was adjusted by evaluating bond holdings at market value rather than book value, and loans by subtracting the estimated loss (20 percent of Substandard + 75 percent of Doubtful + 100 percent of Estimated Loss) from the book value.

[8]The committee's suggestion was approval of four, conditional approval of two, and disapproval of six.

[9]According to FSC, an "approval" rating leads to submission of detailed quarterly implementation plans, which will be monitored on an ongoing basis. "Conditional approval" requires submission of implementation plans within one month. In the event of disapproval of an implementation plan, a mandatory merger order or transfer of business order will be imposed. "Disapproval" leads to mandatory merger or transfer of business under a P&A arrangement. Conditionally approved or disapproved banks that voluntarily pursue mergers with sound banks are exempt from mandatory exit.

[10]To ensure the soundness of acquiring banks, only high-grade assets of the liquidated banks were transferred. Nonperforming assets classified as "substandard" or lower were excluded. Additional safeguard measures were taken to prevent inherent risks involved in P&As:

- KDIC covered for any shortfalls in net worth of transferred assets and liabilities.
- KAMCO and KDIC supported the disposal of NPLs by the acquiring banks, and their recapitalization.
- Within a set period after P&A transactions, the acquiring banks could exercise a put-back option by requesting KAMCO to purchase acquired assets if these were later found to be nonperforming.

[11]Examples of rehabilitation efforts include cost reduction such as layoffs, branch network downsizing, and recapitalization through major shareholder or foreign investment. Loss sharing includes writing down existing equity and forcing management to take responsibility for their misdeeds. In the process, the depositors suffer little loss.

[12]At an exchange rate of W1,350/$, 1997 GDP is $311.8 billion.

[13]Ratios of restructuring cost to GDP are 8.3 percent for Finland (1991-1993), 6 percent for the US (1991-1995), 4.7 percent for Sweden (1991-1993), and 4.3 percent for Japan (estimated after 1998).

[14]In early September 1998, KAMCO sold to Goldman Sachs approximately W255 billion (in book-value terms) worth of acquired NPLs, most of which were uncollateralized. The sale was made in the form of asset-backed securities.

[15]In Japan, parachute appointment is called *amakudari*. Horiuchi (1997) argues that the amakudari system is not effective in disciplining bank management.

[16]MOFE supervised special banks and commercial banks' trust business in addition to NBFIs.

[17]From 1987 to 1995, the average return on equity (ROE) of Korean commercial banks was 5.86 percent, half that of US banks.

[18]The process includes authorization, supervision, enforcement, and consumer protection. Authorization refers to authority on entry and exit. Supervision is about policy setting and examination. Enforcement deals with penalty.

[19]As consolidated, the fund is composed of bank accounts, securities company accounts, insurance company accounts (divided into life and nonlife insurance), merchant bank accounts, mutual savings and finance company accounts, and credit union accounts.

[20]On 26 November 1998, KAMCO started operation by purchasing the combined NPLs of Korea First Bank and Seoul Bank amounting to W4.39 million at the discounted price of W2.91 trillion. The average discount rate was set at 66.3 percent.

[21]Federal Deposit Insurance Corporation Improvement Act linked supervision to bank capital. Regulatory forbearance was reduced by requiring regulators to take prompt corrective action when capital falls.

[22]Unlike the central bank's independence, FSC's operational independence is based on the agency's authority over financial institutions from their birth to their death.

[23]Principle 11 reads: "The aggregate amount of specific and general allowances should be adequate to absorb estimated credit losses associated with the loan portfolio."

[24]FSC has reinforced provisioning requirements and loan classification, which resulted in slow or negative growth of bank lending.

[25]A forward-looking standard considers capacity to repay in addition to past performance.

[26]From sight to one-month maturity bracket, any negative mismatch should not exceed 10 percent of total foreign currency assets.

[27]Some people worry that KAMCO may try to become a permanent institution.

[28]KAMCO does not purchase (i) small NPLs below W10 million, (ii) NPLs originated by overseas branches, or (iii) NPLs without legal recourse. These are estimated to make up 15 percent of total NPLs.

[29]From 1987 to 1995, the average ROE of Korean commercial banks was 5.86 percent, or half that of US banks.

[30]Credit crunch appeared in the form of both high interest rates and shrinking supply of credit because of faulty financial intermediation.

[31]It is not clear whether FSS already knows by how much BIS CAR will decrease due to deduction of provisions on loans that are substandard or below from Tier-2 capital.

[32]FSS has already advertised job openings in risk management. However, it should know that the best talents cannot be recruited without proper compensation.

[33]NPLs here include only loans that are substandard and below. Precautionary loans are not included.

[34]Unfortunately, not many banks can attract investors to finance bad banks without Government assistance. This means that even though the Government permits private bad banks, there will be only a couple of them in the beginning.

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The Financial Crisis in Korea: Causes and Challenges

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Introduction

Faced with a currency crisis in November 1997, Korea asked assistance from the International Monetary Fund (IMF). On 3 December, the authorities and IMF agreed on a program amounting to $57 billion,[1] the largest in IMF's history. The program required a tight macroeconomic policy as well as comprehensive structural adjustment in the corporate and financial sectors.

Before the crisis, most people believed that Korean economic fundamentals were sound and that a foreign exchange crisis was impossible. The country's macroeconomic variables and foreign-debt-related indicators, such as debt-service ratio, suggested that it would not go the way of Mexico, Thailand, and other crisis-ridden economies.

Korea's economic performance had been the envy of the developing world during the last three decades. In December 1996, the country became the second Asian member of the Organisation for Economic Cooperation and Development (OECD). Its economic performance during the last five to seven years was impressive. Average growth rate was about 7-8 percent and inflation was stable at below 5 percent. Unemployment remained below 3 percent. The country registered either a fiscal balance or surplus. The only problem was the current account: after a surplus in 1993, it deteriorated continuously until the deficit peaked in 1996. However, the deficit was still below 5 percent of gross domestic product (GDP) and, even on the eve of the financial crisis, it was decreasing rapidly. Korea was compared favorably with other crisis- and debt-ridden countries except for its ratio of foreign reserves to short-term debt, which started to fall in 1996. Compared to that of other developing countries, its foreign-debt/GDP ratio was among the lowest.

Korea's sound macroeconomic performance and debt indicators led most observers to believe that the country would escape the foreign exchange crisis that had overwhelmed Indonesia, Mexico, and Thailand. The Korean people were shocked when their Government asked IMF for a bailout program.

Why did Korea find itself in a financial and currency crisis? The answer lies in the country's macroeconomic environment and structural problems, which led to (i) corporate overinvestment, (ii) a highly vulnerable financial structure, and (iii) banks' mismatch of foreign assets and liabilities. This paper analyzes not only macroeconomic policies before and during the crisis, but also structural problems and the development of the corporate financial structure, all of which led to the crisis.

Overinvestment in the corporate sector, which was financed largely by short-term debt, led to corporate insolvency, which, in turn, rapidly increased banks' nonperforming assets. It was facilitated by economic liberalization, which started in the 1990s under the old rules of the game—that is, that the Government would implicitly guarantee domestic as well as foreign loans and would not allow the *chaebol* (conglomerates) to go bankrupt.[2] The combined effect of relaxation of (i) restrictions on foreign loans, (ii) entry of financial institutions, and (iii) Government control over firms' entry into specific industries led to rapid investment expansion in 1994-1996 despite the corporate sector's declining profitability. The start of the domestic recession in late 1995 and severe terms-of-trade shock in 1996 aggravated the cash flow situation of highly leveraged firms, which already suffered from high wages, high interest rates, and low profits. The accumulated impacts pushed longstanding corporate sector problems to the surface, starting a chain of chaebol bankruptcies in early 1997.

As the Government could no longer afford to bail out the chaebol, and as Korean banks watched their nonperforming assets grow, foreign creditors reviewed the risk of lending to Korean banks and firms. Foreign creditors' and investors' confidence in the economy eroded rapidly as the Asian financial crisis broke out and it became clear that Government policy response to the crisis was flawed. Poor supervision contributed to the growing term mismatch between

banks' foreign assets and liabilities during capital liberalization, making the economy extremely vulnerable to runs by foreign creditors, which were triggered by the contagion in neighboring countries.

The paper is organized as follows. The next section discusses (i) developments in the macroeconomic environment, (ii) structural problems, (iii) corporate financial structure, and (iv) foreign debt structure in light of economic liberalization in the 1990s. The third section reviews macroeconomic policy management in the midst of globalization and the crisis, and analyzes mistakes in policy response. The fourth assesses the IMF program. The fifth specifies the challenges facing the economy and recommends policies. The sixth summarizes lessons from the financial and currency crisis.

Macroeconomic Developments and Economic Liberalization

Government intervention in resource allocation has been more pervasive in Korea than in other East Asian market economies. The country's rapid economic development during the last four decades has been based on a close partnership between Government and industry.[3] The Government spurred domestic entrepreneurs with cheap credit, export incentives, and other measures to draw their investments into the export, heavy, and chemical industries, establishing a kind of Government-business-industry co-insurance relationship. Until the early 1980s, the Government directly owned all major commercial banks, controlling their management and credit allocation even after they were privatized. Firms in trouble due to their overly ambitious investments or external shocks were saved by Government bailout credit and other measures to socialize their losses. When they were successful, they were allowed to keep their profits and expand rapidly. The chaebol moved into almost every industry, from semiconductors and automobile manufacturing to the hotel and retail business.[4] The top 30 chaebol represented almost half of total corporate assets and 14 percent of total employment.

Rapid economic growth and changes in both the domestic and international economic environment in the 1990s prompted economic, especially financial, liberalization. Financial liberalization had been attempted since the early 1980s, but did not progress for various reasons.[5] However, starting in 1993, it made headway domestically and internationally. Interest rates were almost completely liberalized and entry barriers to the banking and nonbanking sectors relaxed. (See Appendix.) Most restrictions on foreign capital flows were also removed. Although the Government continued to restrict foreign investment in domestic fixed-income assets, such as Government securities and corporate bonds issued by large firms, it quickly relaxed the restriction on foreign investment in the domestic stock market and on short-term trade-related credit.

It is notable that the Government quickly liberalized the foreign exchange business and foreign borrowing of domestic banks while controlling firms' direct foreign borrowing. This allowed rapid expansion of foreign debt channeled through the domestic banking system and, to a lesser extent, through direct borrowing of firms starting in 1994 (Table 1).

Macroeconomic Developments

Economic and financial liberalization did not cause significant macroeconomic imbalance, because the Government maintained prudent fiscal and monetary control and pursued a cautious approach to capital market opening.

The macroeconomic environment was stable throughout the 1990s. Economic growth rate was high, especially in 1994-1996, averaging at 8 percent (Table 2). Inflation was steady at about 5 percent. The domestic interest rate was high due to strong investment demand by firms, but gradually declining. Fiscal and monetary policies were also sound. Monetary policy was reasonably stable, although some-

Table 1: External Debt, 1992-1997 ($ billion)

Item	1992	1993	1994	1995	1996	1997[a]
Total external debt[b]	42.8	43.9	56.8	78.4	104.7	120.8
Long-term	24.3	24.7	26.5	33.1	43.7	69.6
Short-term	18.5	19.2	30.4	45.3	61.0	51.2
Public sector	5.6	3.8	3.6	3.0	2.4	18.0
Long-term	5.6	3.8	3.6	3.0	2.4	18.0
Short-term	0	0	0	0	0	0
Private sector	13.7	15.6	20.0	26.1	35.6	42.3
Long-term	6.5	7.8	9.0	10.5	13.6	17.6
Short-term	7.2	7.8	11.0	15.6	22.0	24.7
Financial sector	23.5	24.4	33.3	49.3	66.7	60.5
Long-term	12.2	13.0	13.9	19.6	27.7	33.9
Short-term	11.3	11.4	19.4	29.7	39.0	26.6
Total foreign obligation[c]	62.9	67.0	88.7	119.7	157.5	154.4
Long-term	26.0	26.7	30.3	41.0	57.5	86.0
Short-term	37.0	40.3	58.4	78.7	100.0	68.5
Public sector	5.6	3.8	3.6	3.0	2.4	18.0
Long-term	5.6	3.8	3.6	3.0	2.4	18.0
Short-term	0	0	0	0	0	0
Private sector	13.7	15.6	20.0	26.1	35.6	42.3
Long-term	6.5	7.8	9.0	10.5	13.6	17.6
Short-term	7.2	7.8	11.0	15.6	22.0	24.7
Financial sector	43.6	47.5	65.1	90.5	119.5	94.1
Long-term	13.9	15.0	17.7	27.5	41.5	50.3
Short-term	29.8	32.5	47.4	63.1	78.0	43.8

[a] Preliminary.
[b] World Bank standard of classification of external debt, which includes domestic residents' debt only.
[c] World Bank standard plus financial institutions' offshore borrowing and foreign branches' borrowing.
Source: Ministry of Finance and Economy, *Financial Statistics Bulletin,* various issues.

Table 2: Macroeconomic Indicators, 1980-1996 (percent)

Item	1980-1985	1986-1991	1992	1993	1994	1995	1996
GDP growth rate	6.3	9.9	5.1	5.8	8.6	8.9	7.1
Inflation (CPI)	10.9	6.1	6.3	4.8	6.2	4.5	4.9
Corporate bond yield rate	19.0	15.1	16.2	12.6	12.9	13.8	11.9
Money supply (M2) growth	20.6	18.8	18.4	18.6	15.6	15.5	16.2
Money supply (M3) growth	25.0	28.7	21.8	19.0	24.7	19.1	16.7
Fiscal deficit[a]/GDP	(2.5)	(0.2)	(0.7)	0.3	0.5	0.4	0.3
Current account/GDP	(3.8)	3.0	(1.5)	0.1	(1.2)	(2.0)	(4.9)
Foreign exchange reserves ($ billion)	7.1	12.2	17.1	20.3	25.7	32.7	33.2

( ) = negative values are enclosed in parentheses.
[a] IMF consolidated fiscal deficit.
Source: Ministry of Finance and Economy, *Financial Statistics Bulletin*, various issues.

what expansionary when measured by the growth of M3, which was not subject to control by the monetary authorities. Monetary growth rate further stabilized beginning in 1994 despite continued expansionary pressure from increased foreign capital inflow. The consolidated budget has produced a surplus since 1993.

The only imbalance was in the current account position. The country had a current account deficit throughout the 1990s, except in 1993, and this ex-

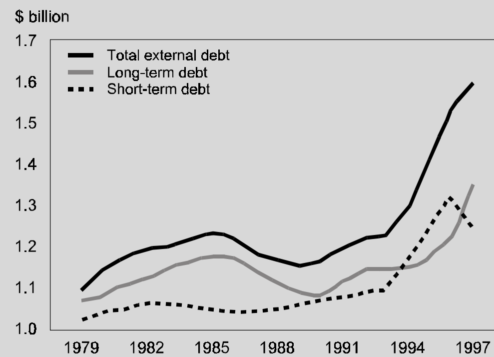
panded in 1995-1996 (Table 3). Nevertheless, official foreign reserves increased owing to large capital inflow.

Table 3: Trend of Foreign Exchange Supply and Demand, 1994-1997 ($ billion)

Item	1994	1995	1996	1997
Current account	(4.5)	(8.9)	(23.7)	(12.5)
Capital account	9.0	13.4	17.0	10.2
Overall balance	2.8	3.0	(5.7)	(8.6)
Foreign reserves	25.7	32.7	33.2	24.4

( ) = negative values are enclosed in parentheses.
Source: Bank of Korea, *Monthly Bulletin,* various issues.

Figure 1: Foreign Debt



Source: Ministry of Finance and Economy, *Financial Statistics Bulletin,* various issues.

The current account deficit expanded for several reasons:

- Private sector investment quickly increased.
- Trade shock ensued with the collapse of the international semiconductor market and decline of international prices of major export items, such as steel, ships, and petrochemical products. It was the greatest trade shock after the first oil shock, surpassing even the second oil shock.
- The won appreciated in real terms due to the yen's depreciation (Table 4). Unlike many other East Asian countries, Korea adopted the relatively flexible market average exchange rate system in 1990. Nevertheless, the yen's depreciation lowered Korean exports' competitiveness in 1995-1996, contributing to further widening of the current account deficit.

The expansion of the current account deficit and the opening of the capital market rapidly raised foreign debt in the 1990s. Such increase was facilitated by short-term capital inflow, especially in 1993-1996 when capital market opening accelerated (Figure 1).

Structural Problems

Despite a stable macroeconomic environment, structural problems intensified and became more obvious as the economy increasingly opened in the 1990s. These problems lay in the distorted incentive structure, which (i) encouraged overexpansion of corporate investment and (ii) misaligned relative prices, especially the overvalued exchange rate, which (a) distorted resource allocation and (b) reduced export competitiveness. Furthermore, political democratization strengthened the bargaining power of labor unions and rapidly raised real wages. The bubble effect of real property increased rents and the price of services. In addition, in a situation where asset values, rents, and exchange rates were misaligned, the chaebol expanded their social influence by increasing in size rather than by investing profitably

Table 4: Terms of Trade and Real Exchange Rate, 1991-1997

	1991	1992	1993	1994	1995	1996	1997
Export price index	94.2	93.2	93.6	95.2	100.0	86.6	75.0
Import price index	96.4	94.9	91.3	91.8	100.0	98.8	93.4
Terms of trade	97.7	98.2	102.5	103.7	100.0	87.7	80.3
Savings (% of GDP)	36.1	35.0	35.2	35.4	36.2	34.6	36.4
Investment (% of GDP)	39.1	36.8	35.2	36.2	37.4	38.6	33.3
Real exchange rate (W/¥; 1993=100)	90.9	91.6	100.0	104.3	94.7	87.9	92.6
Real exchange rate (W/$; 1993=100)	98.4	100.5	100.0	95.0	91.3	98.3	101.3

Source: Bank of Korea, *Economic Statistics Yearbook*, various issues.

and efficiently. This was why high interest rates persisted and wages rose faster than productivity. Poor prudential regulation and supervision failed to curb financial institutions' reckless lending to risky corporate investments.

Rapid Wage Increase

Domestic wages grew faster than labor productivity during the last decade (Table 5), making them higher than those of Hong Kong, China; Singapore; and Taipei,China (Table 6).

Table 5: Wage and Labor Productivity Increase (percent)

Item	1971-1986	1987-1995
Wage growth	21.2	16.1
Productivity growth	26.8	13.1

Source: Korea Productivity Center Estimates.

As a result, the corporate sector increasingly suffered from declining competitiveness and profits.[6] By the early 1990s, high wages began to take their toll and most exporting companies began to incur operational deficits.

Asset Inflation

The ratio of total land value to GDP soared to 9.2 in 1991. Although it gradually went down to 5.4 by 1994 owing to the accelerated growth of nominal GDP relative to stable land values since 1991, it was still high compared to other countries' ratios (Table 7). This resulted in high rental cost, rental income, and cost of living, which led urban workers to demand wage hikes.

Rising real estate prices meant that corporations' asset values increased more quickly than their operational sales deficits, allowing them to continue borrowing more money. This was supported by the rapid expansion of credit, especially by the nonbanking institutions. Therefore, in spite of deficits of many years, corporations were able to sustain investment expansion without significantly raising the debt/equity ratio on their balance sheets.[7]

Table 7: Land Value to GDP Ratio, 1994

Country	Total Land Value/GDP
France[a]	0.9
Japan	3.5
Korea	5.4
United Kingdom	1.6
United States	0.7
Taipei,China	3.3

[a] Figures are for 1993.
Source: National Statistical Office.

Misguided Corporate Incentives and Erosion of Corporate Profitability

The chaebol expanded their sales, assets, employment, and, consequently, their social influence. Although they had low marginal productivity of capital, their investment drive continued, motivated by rivalry among themselves for every major industry (including automobiles, steel, shipbuilding, retail, and petrochemicals). High interest rates persisted despite the high domestic savings rate because of the strong demand for capital. Likewise, increased demand for labor resulted in high wages, while the excessive activities of chaebol trade unions and the political democratization of the past 10 years perpetuated the high wage structure.

On the supply side, financial institutions' unimpeded credit support to the chaebol and their affiliated com-

Table 6: Hourly Wage in the Manufacturing Sector and Per Capita Income ($)

Item	Hong Kong, China	Japan	Korea	Singapore	Taipei,China	United States
Hourly Wage:						
1985	1.73	6.34	1.23	2.47	1.50	13.01
1990	3.20	12.80	3.71	3.78	3.93	14.91
1995	4.82	23.66	7.40	7.28	5.82	17.20
Per Capita Income:						
1995	22,990	39,640	9,700	26,730	12,293	26,980

Source: US Bureau of Labor Statistics, 1995.

panies encouraged the bubble effect. Monetary policy concentrated on controlling the growth of M2, which increased by only 5.4 times in the past 10 years, while nominal GDP increased by 4.4 times. However, another monetary indicator of the market's total liquidity, M3, grew about 10-fold (Table 8). Over the last 10 years, credit expanded rapidly through merchant banks and investment trusts, helping create the economic bubble.

Table 8: Asset Inflation and Monetary Growth, 1985 and 1995 (W billion)

Item	1985 (A)	1995 (B)	B/A
Nominal GNP	79,301	348,284	4.4
M2	28,565	153,945	5.4
M3[a]	55,450	527,017	9.5
CPI (1985=100)	100	176	1.8
Land value (1985=100)	100	510	5.1

CPI = consumer price index.
[a] M2 plus liabilities of nonbank financial institutions.
Sources: National Statistical Office; Bank of Korea, *Monthly Bulletin,* various issues.

With wages higher than labor productivity and interest rates higher than capital productivity over the past 10 years, companies were unable to accumulate profit. From the 1960s to the early 1980s, the Government controlled the financial industry and labor activities, keeping interest rates and wages below the real rate of return on capital and productivity increase. Thus, companies' profits were not fully distributed to households, but were plowed back into the companies' rapidly expanding operations. This was a major reason for the unprecedented growth of Korean firms, especially the large ones.

From the second half of the 1980s, however, this trend was reversed and households' and individuals' income support (through high interest rates and high wages) surpassed companies' real value of production. Despite higher individual and household income and consumption, profitability dropped. Operational deficits were sustained by debt expansion made possible by (i) increases in the value of corporate assets, (ii) expansion of nonbank financial institution (NBFI) credits, and (iii) accounting practices that disguised real losses.

Korean companies' profitability has deteriorated to a level much below that of firms in economies that have significantly lower financial costs, such as Japan; Taipei,China; and the US (Table 9). But real profitability, disguised by accounting practices, may have been much lower than the statistics suggest.

The chaebol have used their monopolistic position to transfer their costs, including high wages, interest rates, and rents, to consumers. However, with the launching of the World Trade Organization (WTO), import liberalization has made it harder to pass on costs to consumers, thus worsening the chaebol's losses.

Exchange Rate Overvaluation and Resource Shift Toward the Nontradable Sector

Despite the monetary authorities' sterilization efforts, the real exchange rate appreciated in 1995-1996 due to capital market opening and massive capital inflow. Real exchange rate appreciation could have been higher during the last decade, if adjusted further for unit labor cost.

The export sector suffered from low receipts and high factor costs while the nontraded sector had high

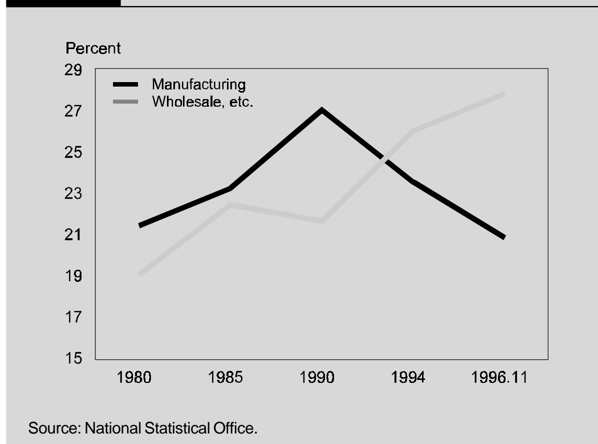
Table 9: Corporate Profitability in Manufacturing, 1989-1993 (%)

Item	Japan	Korea	Taipei,China	United States
Current profit/sales	3.38	1.97	3.72	3.06[a]
Current profit/assets	3.54	1.99	3.50	6.23[b]
Net profit/capital	na	5.03	11.77	na

na = not available.
[a] Net profit/sales.
[b] Operating profit/assets.
Source: Bank of Korea, Corporate Financial Statement Analysis, various issues.

profitability despite low technology. As a result, resources have moved rapidly from the export sector to production for the domestic market and from the trade to nontraded sector. The manufacturing sector, which once sustained the Korean economy, has become less important: its share of industry value-added dropped from 29.2 percent in 1990 to 26.9 percent in 1995. The service sector, however, continued to expand rapidly to 56 percent. The number of workers in manufacturing decreased while that in services, especially the wholesale, retail, and entertainment business, increased swiftly.

Figure 2: Employment Share of Manufacturing Sector



Source: National Statistical Office.

These trends are altogether too rapid for an economy such as Korea. As of November 1996, the number of workers in the wholesale, retail, and restaurant and hotel businesses accounted for 28 percent of the workforce, 7 percent higher than that of manufacturing (Figure 2). In contrast, Germany; Japan; Singapore; and Taipei,China have more workers in manufacturing (Table 10).

Seven of the largest chaebol went bankrupt in 1997 after longstanding corporate problems were brought to the surface by the following: (i) the recession, which started in late 1995; (ii) the terms-of-trade shock of 1996; (iii) the reckless investment drive in 1993-1995; and (iv) reduced credit expansion starting in 1995-1996. Banks' nonperforming loans also quickly eroded foreign creditors' confidence.

Financial Liberalization and the Development of Corporate Financial Structure

Complete liberalization of domestic interest rates and the rapid expansion of NBFIs, whose main business was short-term bill transactions, resulted in the deterioration of the corporate sector's financial structure. This led firms to rely on short-term debt, which made them increasingly vulnerable to liquidity shock.

Financial liberalization in the 1990s further accelerated the growth of the financial sector, which had developed rapidly in the 1980s owing to stable inflation and high real interest rates. The financial interrelation ratio increased from 442 percent in 1991 to 555 percent in 1996. M3 grew from 114 percent of GDP in 1991 to 159 percent of GDP in 1996, helping finance the fast expansion of corporate investment in the 1990s (Table 11).

Investment went up rapidly in 1995-1996 due to the following:

- The yen appreciated steeply beginning in late 1993, benefiting Korean industrialists.
- After the Government announced its intention to join the OECD in 1994, the expectation of further financial opening and the resulting de-

Table 10: International Comparison of Manufacturing Share in Total Employment (%)

Item	Germany (1994)	Japan (1994)	Korea (1996.11)	Singapore (1994)
Manufacturing	28.7	23.2	21.0	27.0
Wholesale, retail, hotel and restaurant businesses	15.1	22.4	28.0	22.8

Source: Ministry of Finance and Economy, *Financial Statistics Bulletin*, various issues.

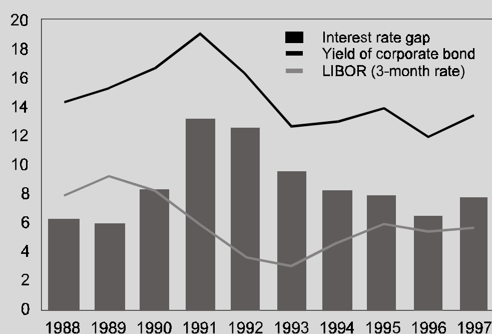
Table 11: Financial Interrelation Ratio (FIR) and M3/GDP Ratio (%)

	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996
FIR	271	308	394	433	442	467	490	512	526	555
M3/GDP	39	49	70	111	114	125	134	146	151	159

FIR = Increase in financial assets/Increase in capital stock, GDP = gross domestic product.
Source: Bank of Korea, Flow of Funds, various issues.

cline in domestic interest rates encouraged domestic firms' heavy investment in production capacity. The gap between domestic and foreign interest rates gradually narrowed starting in 1992 (Figure 3).

Figure 3: Domestic and Foreign Interest Rate Gap



LIBOR = London interbank offered rate.
Source: Ministry of Finance and Economy, *Financial Statistics Bulletin*, various issues.

Prior to economic deregulation, the Government controlled firms' entry into industries it deemed crowded. This checked, to some extent, reckless investment and buildup of overcapacity caused by the moral-hazard effect of the Government's implicit risk partnership and strong rivalry among the chaebol.[8] But economic deregulation under the previous administration (1993-1998) stopped Government intervention. When the Government brought down entry barriers, it should have controlled the chaebol's reckless investment. For instance, it should have limited cross subsidization among affiliated firms within the chaebol through cross-guarantee of loans and transfer pricing, and it should have given clearer signals that it would no longer bail out troubled firms. But it was only after the crisis broke out and the IMF program was negotiated that the Government moved to rein in the chaebol.

Investment expansion in the 1990s, especially in 1994-1996, relied heavily on short-term financing. Table 12 shows the financing pattern of the 30 largest chaebol in 1994-1996: they were largely dependent on debt, particulary short-term debt for financing their investment, which rapidly increased their short-term liability. This practice was not limited to the chaebol, but was common in the corporate sector (Kim 1998).

Table 13 shows the sources of funding for the corporate sector. Much of the increase in short-term financing was due to the accelerated growth of the commercial paper (CP) market. This market expanded rapidly when the Government deregulated it in 1994 by (i) removing administrative controls on its yield, (ii) reducing the minimum unit amount, and (iii) allowing it to offer a higher interest rate than bank deposits. The CP market also grew fast because it was not subject to monetary control.[9] Another important factor was regulatory oversight. CP was issued by large firms, discounted by short-

Table 12: Financing Pattern of the 30 Largest Chaebol, 1994-1996 (%)

	Internal Fund	External Fund				Total
		Total	Capital Increase	Long-term Loans	Short-term Loans	
1994	41.2	58.8	1.2	9.8	47.7	100.0
1995	36.8	63.2	1.4	12.2	49.7	100.0
1996	22.4	77.6	1.3	12.7	63.6	100.0

Source: The Korea Center for Free Enterprise, 1997.

Table 13: **Funds Raised by the Corporate Sector, 1994-1997 (W billion)**

	1994		1995		1996		Jan-Jun 1997	
	Amount	%	Amount	%	Amount	%	Amount	%
Total funds raised	89,041	100.0	100,016	100.0	118,201	100.0	62.101	100.0
Borrowing from banks and NBFIs	39,650	44.5	31,855	31.8	36,995	31.3	29,755	47.9
Direct finance	33,940	38.1	48,071	48.1	55,601	47.0	19,161	30.9
Commercial paper (CP)	4,405	4.9	16,096	16.1	20,691	17.5	5,277	8.5
Borrowings from abroad	4,407	4.9	8,392	8.4	12,063	10.2	5,732	9.2
Others[a]	11,044	12.4	11,699	11.7	13,542	11.5	7,453	12.0

NBFI = nonbank financial institution.
[a] Trade credits, borrowings from Government, bills payable, etc.
Source: Bank of Korea, *Quarterly Economic Review,* various issues.

term finance companies or merchant banks and resold to other holders with guarantees. Guarantee of CP was against the rules, but the practice went unchecked by the regulatory authorities. CP was a risky asset but it was traded with high yields as if it were risk-free. The market expectation (i.e., moral hazard) that the Government would not allow the chaebol to go bankrupt also contributed to the CP market's rapid expansion.

Liberalization of interest rate controls opened the floodgates for rapid expansion of the short-term securities market. But the failure of the market and the authorities to institute proper supervisory and monitoring mechanisms increased overall risk. Fast growth of the short-term securities market may have been desirable, but in the absence of proper supervision, the market participants were subject to moral hazard.

The corporate financial sector became weaker. Its short-term liabilities and leverage ratio rose as it invested in heavy and chemical industries, which required a long gestation period. Corporate profits declined due to (i) overexpansion, (ii) high labor cost, and (iii) high interest payments. Poor financial structure and profitability and domestic economic recession resulted in a chain of chaebol bankruptcies in early 1997. Financial liberalization, coupled with the market's inability to assess risk and monitor investment behavior, led to overinvestment, which was financed heavily through short-term debt. As a result, firms became vulnerable to liquidity shock.

Capital Market Opening and the Increased Term Mismatch

Capital market opening accelerated beginning in 1994. The Government, however, feared that with the large gap between domestic and international interest rates, opening the capital market quickly would destabilize the domestic macroeconomic environment. It thus employed a gradual approach, liberalizing real transaction-based flows, such as short-term trade credit, first, and then pure portfolio transactions later. This strategy was to guard the economy against volatile movement of portfolio investment, especially speculative short-term flows involving domestic securities investment. But it gradually opened the domestic stock market to foreign investment in 1993 while restricting foreign investment in domestic fixed-income assets.[10]

Aware of domestic firms' strong appetite for capital, the Government continued to control their direct borrowing from abroad. But it was more lax with domestic banks and allowed the proliferation of licensed financial institutions, which could engage in foreign exchange transactions. In 1994-1996, it permitted the conversion of 24 short-term finance companies, which were prohibited from undertaking foreign exchange transactions, into merchant banks, which could engage in such activities. During the same period, 28 foreign branches of domestic banks were established.

The new merchant banks, although lacking experience in foreign capital transactions, immediately

Table 14: Long- and Short-term External Debt, 1991-1997 (%)

Item	1991	1992	1993	1994	1995	1996	1997
Share in External Debt							
Long-term debt	56.0	56.8	56.3	46.6	42.2	41.7	42.4
Short-term debt	44.0	43.2	43.7	53.4	57.8	58.3	57.6
Percent Change							
Long-term debt	25.9	11.0	1.6	7.3	24.9	32.0	17.2
Short-term debt	20.3	7.6	3.8	58.3	49.0	34.7	14.1

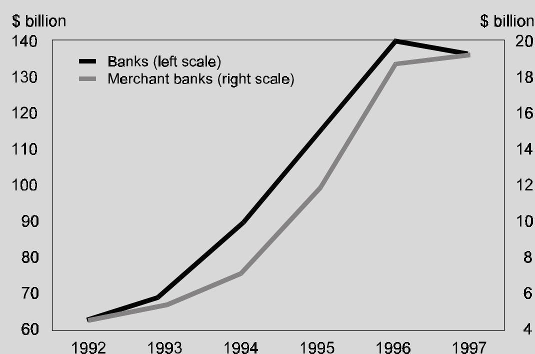
Source: Ministry of Finance and Economy, *Financial Statistics Bulletin*, various issues.

Table 15: Term Mismatch in Foreign Assets and Foreign Liabilities, 1992-1996 ($ billion)

Item	1992	1993	1994	1995	1996
Banks					
Short-term foreign debt (A)	45.8	49.8	65.8	85.8	104.8
Short-term foreign assets (B)	39.0	44.5	54.9	68.6	84.1
Ratio (%): (B)/(A)	85.2	89.3	83.4	80.0	80.3
Merchant banks					
Short-term borrowing (A)	3.3	3.6	5.1	7.1	12.6
Short-term investment (B)	0.1	0.1	0.2	0.2	0.8
Ratio (%): (B)/(A)	3.6	4.0	3.0	3.1	6.3

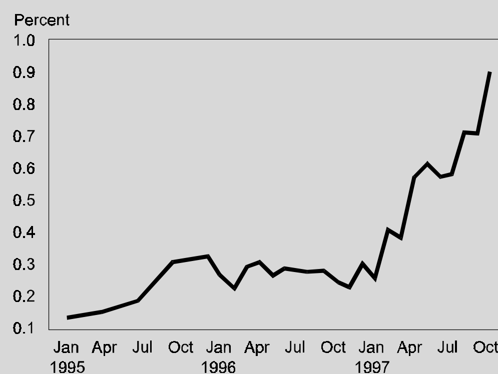
Source: Bank of Korea, *Monthly Bulletin,* various issues.

Figure 4: Foreign Borrowing of Banks



Source: Bank of Korea, *Economic Statistics Yearbook,* various issues.

Figure 5: Interest Rate Spread of the Korean Banks' Borrowing



Source: Bank of Korea, *Monthly Bulletin,* various issues.

expanded their foreign borrowing (Figure 4). This and the widening current account deficit in 1994-1996 led to a rapid increase in foreign debt.

Foreign debt more than doubled in 1992-1996, with the greatest increase in 1994-1996, at an average annual growth rate of about 30 percent. Such growth is mainly due to short-term loans (Table 14).

The rising share of short-term debt may not necessarily have been bad, since it may reflect the deepening integration of the domestic into the global financial market. Most advanced economies have a higher share of short-term debt than Korea. But the real problem was the growing term mismatch between Korean banks' foreign liabilities and assets, which started to worsen in 1994 (Table 15). This was most pronounced for merchant banks.

Recognizing the risk from such mismatch, foreign creditors demanded higher premiums on Korean banks' borrowing rate in early 1997 (Figure 5). Nevertheless, the mismatch problem remained unchecked by the regulatory authorities. It was only in June 1997

that the authorities introduced a rule which limited holdings of long-term assets through short-term borrowing.

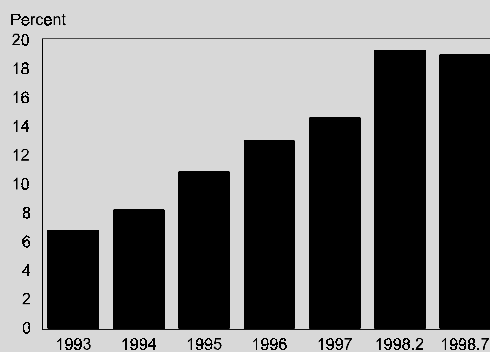
In sum, the capital-opening strategy and lack of prudential regulations governing banks made the economy increasingly vulnerable to a foreign exchange crisis.

Macroeconomic Policy Management

A Brief Assessment of the Degree of Globalization

In the 1990s, the economy was quickly integrated into the global economy. Former President Kim's administration (1993-1998) campaigned intensely for "globalization." The campaign went beyond economic globalization—it accelerated capital market opening and other economic deregulation measures. The country's intention to join the OECD also facilitated globalization. Consequently, domestic financial markets became more accessible to foreign financial institutions. The accelerated capital market opening contributed to narrowing the gap between domestic and foreign interest rates, whose movements became more synchronized (Figure 3). Foreign shareholding in the stock market also increased substantially (Figure 6).

Figure 6: **Shareholding by Foreign Investors in the Domestic Stock Market**



Source: Korea Stock Exchange Website.

These are indications that the integration of the economy into the global economy proceeded briskly since 1993. However, domestic institutions and market infrastructure lagged behind. Domestic competition policies, corporate governance structure, and banking regulations were not adjusted concomitantly. By the mid-1990s, the economy had outgrown its own institutional capacity. As a result, it became increasingly inefficient and vulnerable to changes in the external economic environment.

Macroeconomic Policy Management in the Midst of Globalization

Although it pursued a sound macroeconomic policy, the Government failed to address the economy's structural weakness which led to bubbles by the early 1990s.

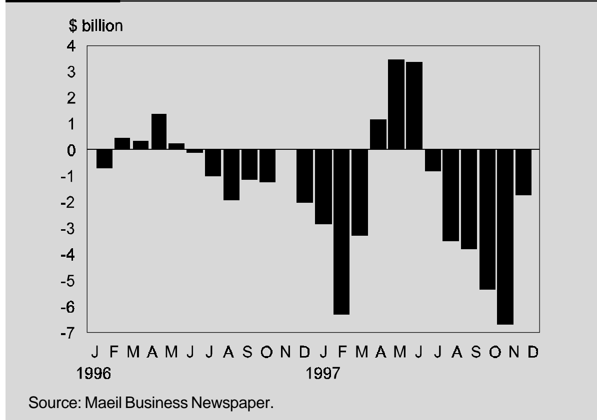
The flawed competition policy, which allowed cross-subsidy through various means, including transfer pricing and cross-loan guarantees among affiliated firms, went unchecked. Small shareholders' right to monitor and check management efficiency was blocked by, among others, poor accounting practices. Financial sector's poor credit analyses, moral hazard nurtured under the past development strategy, and poor prudential regulation and supervision facilitated the financial institutions' reckless lending to risky corporate investments. Demand for capital and labor, however, continued to expand.

In the early 1990s, the economy was already showing signs of growing structural distortions characterized by high wage levels, interest rates, rental costs, and logistic costs. Nevertheless, corporate investments remained strong due to the distorted incentive structure and unrealistic expectations, which were left uncorrected during the fast-paced globalization in 1993-1996.

Another area of Government oversight was management of the exchange rate policy. Although macroeconomic policy in general was sound during the period of globalization, exchange rate policy was controversial. The economy showed signs of waning competitiveness; the current account deficit deteriorated sharply in 1996. The authorities should have let the exchange rate slide as market forces started

to push down the currency's value in the second half of 1996. Instead, they tried to sustain the overvalued exchange rate by intervening in the market at the cost of about $17 billion (Figure 7).[11]

Figure 7: **Intervention in the Foreign Exchange Market ($ billion)**



Source: Maeil Business Newspaper.

Government motives for intervening were to (i) stave off the inflationary impact of depreciation and (ii) limit exchange losses of heavily indebted chaebol. But considering the large current account deficit and relatively small foreign reserves, it does not seem to be the right policy response.

Inconsistency of Macroeconomic Policies

In a broad sense, the country's financial and currency crisis resulted from its failure to reform its institutions to match the economy's growing openness to and integration into the global market. Rapid economic growth since the 1960s made the economy and private sector sophisticated enough so that Government intervention in resource allocation was no longer efficient or effective. Thus, economic liberalization was the correct policy response. However, to some extent, it was driven by both internal and external pressures. The external pressure to liberalize trade and open the capital market came from the establishment of the WTO and continuing trade disputes with the Western economies. Since Korea already had relatively low tariff rates of around 6-7 percent, trade liberalization focused on reducing nontariff barriers and deregulating foreign direct investment in areas such as distribution and retail trade. The greatest pressure was on financial market opening. It came not only from external sources, but also from the chaebol, whose operations had been globalized.

Financial liberalization, however, was not accompanied by the necessary reform of firms and financial institutions. The uneven competition policy and lax prudential regulations remained intact. Although economic liberalization was an appropriate policy response to the changing internal and external environments, it emboldened domestic firms and financial institutions to explore tremendous moral-hazard opportunities. In the past, moral hazard had been partly offset by regulations such as entry restrictions and controls on internal and external borrowing. During the deregulation drive, the Government should have implemented institutional reforms in competition policies, prudential regulatory framework, and the labor market.

At the macroeconomic level, overemphasis on price stability when the currency was overvalued prevented currency depreciation, further eroding Korean exports' competitiveness and fueling speculation on the currency's future depreciation.

Macroeconomic Policy Management During the Crisis

The accumulated impact of structural weaknesses started to surface in early 1997. For example, Hanbo, which had swiftly expanded in real estate and construction of residential buildings, moved into the steel mill business and invested heavily by raising short-term debt. When its cash flow was squeezed by the domestic recession, it could no longer repay its loans and went bankrupt in January 1997. Six of the 30 largest chaebol followed suit. Kia, one of the three major automakers, and the ninth largest chaebol, defaulted in July.

The Government let them go bankrupt as it could no longer intervene in the credit market or through

monetary expansion. However, with the presidential election at the end of the year, political circles pressured the Government to prevent the massive bankruptcy. A "cooperative creditors group" was established, including banks and merchant banks, to provide rescue loans to financially troubled chaebol, which only postponed the bankruptcies but could not save the firms. The Government was politically pressured not to let Kia fail or be merged, for example. When Kia could no longer be supported by a rescue loan, it finally went bankrupt in October 1997. Foreign investors' confidence in the Government was eroded, especially when it announced that it would become a major shareholder of Kia by converting the Government-owned Korea Development Bank's loans to equity capital of the company.

As corporate insolvency increased, so did banks' nonperforming assets. Banks, especially merchant banks, were the main channel of foreign loans. When their nonperforming assets became increasingly conspicuous, foreign creditors expected the Government to recapitalize the banks or close down those with no hope of recovery. Instead, the Government came up with a scheme that would obviously not cure the problem. On 25 August 1997, as the corporate and financial sectors' difficulties mounted, the Government promised to financially support troubled banks and to ensure that Korean financial institutions' foreign debt liabilities would be repaid. It also required financial institutions to submit three- to five-year restructuring plans. These measures did little to reassure the market. With the failure of the National Assembly to pass bills based on the recommendations of the Presidential Commission on Financial Sector Reform, foreign investors' confidence was eroded even further, dimming long-term economic prospects.

When the Thailand crisis broke out, foreign investors' confidence was practically nil. The crisis underscored other East Asian countries' vulnerability, notably their (i) macroeconomic instability, (ii) financial weakness, (iii) political volatility, (iv) wavering commitment to reform, and (v) unclear future. However, the Government failed to restructure the financial sector or introduce reforms to strengthen the economy. The Ministry of Finance and Economy and the Bank of Korea had long battled over monetary policy and banking supervision in the new financial reform package. The Government's way of handling the Kia problem and financial restructuring issues disappointed foreign investors. The upcoming presidential election added to the uncertainty.

Although the possibility of a currency crisis became evident in late October, the Government still did not take decisive action. The pressure on the won intensified. Instead of increasing domestic interest rates, the authorities defended the currency and used foreign reserves to prevent the default of Korean banks' foreign branches and of merchant banks whose short-term debts were no longer being revolved. They also maintained a loose monetary policy to support rescue loans by financial institutions. The intervention plunged usable foreign exchange reserves to below $10 billion, or less than a month's imports (Table 16). Speculation that the authorities had depleted the country's foreign reserves triggered the currency's free fall.

Table 16: Official Foreign Exchange Reserves, End of Quarter, 1996-1998 ($ billion)

		1997				1998		
Item	**Dec 1996**	**Mar**	**Jun**	**Sep**	**Dec**	**Mar**	**Jun**	**Jul**
Deposits at overseas branch	3.8	8.0	8.0	8.0	11.3	5.4	3.7	3.6
Usable foreign reserves	29.4	21.1	25.3	22.4	8.9	24.2	37.0	39.3
Others	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2
Total official foreign reserves	33.2	29.2	33.3	30.4	20.4	29.8	40.9	43.0

[a] Based on IMF definition.
Source: Ministry of Finance and Economy, *Financial Statistics Bulletin,* various issues.

On 19 November, the Government announced another set of policy measures to deal with the mounting financial crisis: (i) increased funding to deal with nonperforming assets of financial institutions, (ii) further liberalization of capital account transactions, and (iii) enhanced disclosure standards and loan classification requirements. This failed to calm the markets. On the same day, the authorities declared that the daily exchange rate band had been widened to plus and minus 10 percent, and that they would cease to intervene. The won continued its free fall. From late November to December, the won depreciated more than 50 percent against the dollar. The Government asked the Japanese and US Governments for rescue support, but without success. On 21 November, it formally requested the IMF for bailout credit.

In retrospect, the Government had no options left but to let the won depreciate, tighten its monetary policy, and ask for IMF assistance. However, the situation has already worsened as the Government attempted in vain to avert the crisis by intervening in the exchange market until foreign reserves were almost completely depleted.

The IMF Program and Assessment

The IMF Program

The Government began to implement the IMF program in December 1997. Since then, IMF has frequently reviewed the economy's performance and adjusted the program several times. The IMF program consists of two parts: macroeconomic adjustment and structural reform. Macroeconomic adjustment means tightening the fiscal stance and sharply raising domestic interest rates. Initially, IMF required the authorities to keep a fiscal balance or maximum deficit of 0.8 percent of GDP, and a tight monetary policy. Interest rates were drastically increased; call market rate rose monthly from an average of 14.1 percent in November 1997 to 21.6 percent in December 1997 and 25.6 percent in January 1998; corporate bond yield also went up from 14.1 to 24.3 and 23.4 percent for the same period.

On top of the shock caused by the currency crisis, the tight fiscal and monetary stance led to a dramatic fall in investment and consumer confidence. The economy contracted sharply, with investment plunging about 30 percent and import demand about 25 percent in the first half of 1998. Unemployment went up from 2.1 percent in October 1997 to 7 percent in June 1998. Official projection for economic growth in 1998 was -4 percent, but the actual growth rate was even lower at -5.5 percent. In the review of July 1998, IMF changed its position on macroeconomic policy and suggested that the fiscal deficit be expanded drastically to prevent too-fast economic contraction. The Government set a deficit of up to 4 percent. Interest rates have gradually declined since February 1998, and as the exchange rate further stabilized, they have settled at near precrisis levels (Table 17).

The structural adjustment part of the IMF program focuses on four areas: (i) trade liberalization, (ii) capital market opening and liberalization of foreign exchange control, (iii) corporate restructuring, and (iv) financial sector restructuring (see Appendix).

Table 17: Macroeconomic Developments After the Crisis

	1997						1998					
Indicator	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Corporate bond yield (%)	11.9	12.1	12.4	12.5	14.1	24.3	23.4	19.8	19.0	18.1	17.9	16.6
Call rate (%)	11.4	12.5	13.3	13.6	14.1	21.6	25.6	23.5	22.6	21.2	18.5	16.3
Exchange rate (W/$)	891	896	909	922	1,026	1,484	1,707	1,623	1,505	1,392	1,395	1,397
Unemployment rate (%)	2.2	2.1	2.2	2.1	2.6	3.1	4.5	5.9	6.5	6.7	6.9	7.0
Current account ($ million)	(1,045)	(498)	(510)	(488)	864	3,585	3,060	3,994	3,629	3,859	4,262	3,434

( ) = negative values are enclosed in parentheses.
Source: Bank of Korea, *Monthly Bulletin,* various issues.

A timetable for trade liberalization was set in line with the WTO commitment to eliminate (i) trade-related subsidies, (ii) restrictive import licensing, and (iii) the import diversification program.

Regarding capital account liberalization, the Government took the following measures:

- Increased the ceiling on aggregate foreign ownership of listed shares from 26 to 55 percent and eliminated the ceiling completely by end-1998.
- Raised individual foreign ownership from 7 to 50 percent.
- Immediately removed restrictions on foreign access to domestic money market instruments and the corporate bond market.
- Set a timetable to eliminate all remaining restrictions on corporate borrowings, including loans with one- to three-year maturities, by end-1998.

To restructure the corporate sector, the Government must complete the following key tasks:

- Improve the corporate governance structure by removing restrictions on institutional investors' voting rights in listed companies.
- Strengthen minority shareholders' rights.
- Increase transparency of corporate accounting practice by requiring publication of consolidated financial statements for affiliated firms.
- Reduce cross-guarantees among affiliated firms.
- Liberalize domestic mergers and acquisitions by eliminating the mandatory tender offer requirement.

To facilitate financial restructuring, the Government has established the conditions necessary to (i) accelerate the exit of insolvent banks, (ii) rehabilitate troubled banks, and (iii) strengthen prudential regulations.

Assessment of the IMF Program

Overall, the IMF program is reasonable. IMF has been flexible, adjusting the program according to developments in the economy. At first, it might not have fully understood the economy, but it soon came to better understand the situation of firms and financial institutions. This, together with domestic and foreign criticisms, contributed to the program's flexibility.

Initially, the IMF program had some problems. Facing a currency crisis, the country needed to substantially improve its current account position through tight aggregate demand control, as IMF suggested. But as Table 17 shows, the economy was already contracting fast, its fiscal position was sound, and the current account started to turn to surplus in November 1997, when the currency crisis was about to break out. Thus the fiscal stance did not need additional tightening. Another problematic issue was the high interest rate policy. When the IMF program started in December 1997, the foreign exchange market was extremely unstable; a high interest rate policy was inevitable. But it is debatable whether increasing the interest rate to such a high level and sustaining it for such a long period was appropriate.

The financial crisis was caused by widespread corporate insolvency and the resulting rise in banks' nonperforming assets. Korean firms' debt/equity ratio has always been much higher than that of firms in other countries. It is estimated that, at the end of 1997, the largest 30 chaebol's average debt/equity ratio was over 500 percent. If they did their accounting based on the consolidated balance sheet, then the actual ratio was much higher. The interest rate increase was thus a very costly measure in Korea. It would inevitably lead to massive bankruptcies, which, in turn, would cause financial institutions' nonperforming loans to snowball, further eroding foreign creditors' confidence that the economy would recover.

Although the high interest rate policy had its merits in stabilizing the foreign exchange market, its costs seemed to have outweighed its benefits for several reasons:

- Under conditions of great uncertainty and failure of confidence, high interest rates could not be expected to attract substantial foreign capital inflow.[12]

- The country's foreign exchange control limited capital flight.
- Such high corporate debt/equity ratio and high interest rate policy intimidated potential foreign investors.

Although high interest rates were inevitable in the first several weeks, the IMF program could have chosen to reduce interest rates more quickly which would have kept down the banks' nonperforming assets.

The IMF program may also be criticized for completely eliminating restrictions on foreign investment in domestic money market instruments and in Government and corporate bonds. Opening the market could not attract the very foreign investors who had lost confidence in the Government. But the same policy would burden the economy once the foreign investors' confidence returned and massive short-term capital flowed in. Although the policy has not harmed the economy so far, one may question why IMF had insisted on it.

IMF recently recommended a drastic increase in the fiscal deficit, which is understandable considering the economy's sharp contraction. But if the country is to regain foreign confidence, it must have a large current account surplus, which means that the Government must continue to control demand as export prospects are poor. The Government also needs to provide a huge fund for restructuring ailing banks, even at the expense of medium- and long-term fiscal soundness. It is not clear why IMF recommended a sharp increase in the fiscal deficit, which it has rarely done in other countries. IMF may be responsible for preventing a too-sharp contraction of the Asian economies in order to avoid worldwide recession, but its turnaround after the G-7 deputy ministerial meeting in Tokyo, which agreed to boost the Asian economies, can give rise to the thought that IMF considers the advanced economies' interests more important than the program countries' long-term fiscal viability and structural adjustment.

IMF's structural adjustment measures, however, are appropriate, although it would be better if the program strengthened tax administration and liberalized land policy. Poor tax administration allows widespread tax evasion, which limits tax revenue and raises the unfairness of the tax incidence. The Government needs more fiscal expenditures in order to (i) restructure the financial sector, (ii) ease the bottleneck of social infrastructure, and (iii) establish social safety nets. Unless tax administration is strengthened and tax revenue increased, the country may find itself caught in a vicious circle of chronic fiscal deficit.

The program could also have liberalized land policy. Restrictions on land use resulted in extremely high land prices and rents, which increased the cost of production and cost of living, which, in turn, propelled high wages (Cho 1998). If, for instance, the Government were to release about 10 percent of the land earmarked for agricultural use, it would almost double the supply of residential land.

Challenges Facing the Korean Economy

The Korean economy faces a difficult situation. The Government must perform two tasks: (i) resolve financial sector problems, i.e., clean up losses already incurred; and (ii) reduce the structural problems discussed above as well as establish new rules and institutions to prevent further deterioration of the corporate environment.

Resolving Financial Sector Problems

The country's financial sector problems were deep and widespread. They are not limited to banks and merchant banks, but also seriously affect other financial institutions, including investment and trust companies; securities firms; leasing, insurance, mutual savings, and finance companies; and credit unions. At the core of the financial sector problem is corporate insolvency. In early 1998, nonperforming

assets were estimated at about 20 percent of financial institutions' total assets. The financial sector is large compared to GDP. Total domestic credit is about 170 percent of annual GDP, implying that nonperforming assets could be more than one third of GDP. Since domestic financial institutions cannot immediately expect substantial foreign investment, and the prospects for raising domestic capital are poor, the Government should provide the resources needed to solve the problem. Otherwise, the credit squeeze and market uncertainty will continue to prevent economic recovery. The Government is committed to contribute about W60 trillion to W70 trillion (about 15 percent of GDP), but this amount is far too small to complete the financial restructuring.

The Government must improve the corporate financial structure. Financial restructuring cannot succeed without corporate debt restructuring. Unless the corporate debt ratio is substantially reduced, financial instability will recur, and resources used to recapitalize the banks will be wasted. The high debt/equity ratio will prevent the country from shifting to a fully market-based financial system. The Government will be forced to continue bailing out troubled firms. Without converting corporate debt into equity, the corporate debt ratio cannot be improved. The Government should, therefore, orchestrate a large-scale debt-to-equity conversion. It should also restructure the financial market; only then can the corporate financial structure be changed. The specifics of the required policies are not explained here. But the equity market has to expand rapidly with the establishment of mutual funds, which can facilitate the conversion of debt to equity. Initially, the Government should support or contribute capital directly to the funds since they may face liquidity problems in the transition period.

Resolving Structural Distortions

Structural problems include (i) distorted relative prices, such as high exchange rate, real wages, rental cost, and interest rates; and (ii) a misguided incentive structure, which led to overinvestment and firms' overly leveraged financial structure. The first problem has been addressed: (i) the overvalued exchange rate has been corrected, (ii) real wages are going down fast, and (iii) property values and rents are gradually declining. Interest rates were very high for a while, but they have settled at near precrisis levels. Relative prices have substantially improved. Although the sharp contraction in domestic demand caused severe cash flow problems, firms' cost structure and export competitiveness have much improved.

However, structural reforms have been delayed. The Government has set a timetable to improve the corporate governance structure, accounting standards, and competition policies. Although some progress has been made in these areas, a clearer and comprehensive plan is yet to be established. It is important that the Government continue to implement the IMF measures on schedule and to strictly enforce the new rules.

Lessons and Concluding Remarks

A combination of factors caused the country's financial and currency crisis. The Southeast Asian financial contagion was the immediate cause, but Korea's own longstanding structural problems, which were incompatible with the liberalized and globalized market environment, were the fundamental causes. The Korean crisis was inevitable in the wake of rapid economic liberalization and opening of the highly regulated economy. The economy has outgrown the old institutions and rules of the game which served it well in the period of rapid economic growth. On top of this were oversight in prudential regulation caused by (i) lack of regulatory responsibility and (ii) inability to check and quickly respond to problems which were, in turn, due to (a) frequent replacement of persons responsible for implementing the policy and (b) inadequate policy response as the crisis approached.[13]

Macroeconomic policy was reasonably sound and macroeconomic performance impressive. But the country had to face the consequences of its failure to deal with longstanding structural problems in rapidly changing internal and external environments. Financial liberalization made corporate financial structure vulnerable as firms increasingly relied on short-term debt. Liberalization of capital transactions, especially of short-term trade credit and bank loans, led to growing term mismatch of banks' foreign assets and liabilities. The regulatory authorities failed to check these developments. In sum, the crisis was caused by the failure to adopt necessary structural reforms and enhance monitoring and supervisory capacity.

The lessons from the financial and currency crisis are summarized below:

- Capital market opening and integration of the domestic into the international capital market weakened the economy because it was already fraught with structural problems. To survive in the international capital market, countries must have not only macroeconomic discipline but also a sound microeconomic foundation. It is risky to fully liberalize domestic financial institutions when their assets are of doubtful quality. In other words, a country about to open its financial market should immediately address its banking and corporate sector problems.
- Even though a country may take a cautious approach to capital market opening, it may face a currency crisis if it does not monitor and regulate the foreign asset and liability structure of its financial institutions. The Government thought it had been cautious: it restricted foreign investment in the domestic securities market in order to limit volatile short-term capital flows, but it did not foresee a crisis due to foreign creditors' refusal to revolve short-term credit to domestic banks. An immediate cause of the currency crisis was the failure to check the term mismatch of financial institutions' foreign assets and liabilities.
- A sustained high interest policy was not a desirable response to simultaneous currency and banking crises. When an economy loses the confidence of foreign investors and creditors and faces a currency crisis, a sharp hike of domestic interest rates is the surest way to discourage foreign investment. Although a policy of temporarily high interest rates may prevent massive capital outflow and exchange depreciation, it is costly. Alternatives are (a) implementing temporary exchange control or (b) postponing exchange control while keeping interest rates at a moderate level. A country in severe financial and currency crisis suffers a sharp fall in domestic investment and consumption demand. High interest rates increase banks' nonperforming assets, raise the ultimate cost of financial restructuring, and discourage potential foreign investors. Korea might have done better if it had maintained exchange control on the outflow side for a while (to prevent capital flight or conversion of deposits into dollars) and lowered interest rates. Then the international community may have helped reschedule short-term debt.

The Korean economy is going through a process of comprehensive economic adjustment under the IMF program. The speed of its recovery from the crisis will depend on how quickly the authorities deal with the structural root causes of its financial and corporate sector problems and with the external economic environment. The challenges facing the economy are as formidable as its financial and longstanding structural problems.

Notes

[1]$21 billion from the IMF, $10 billion from the World Bank, $4 billion from the Asian Development Bank, and the rest from bilateral loans.

[2]See Cho and Kim (1995) for details of financial sector policies and the industrialization process.

[3]See Cho and Hellman (1993).

[4]See Cho and Kim (1995) for a comprehensive discussion of Korean credit policy and industrialization.

[5]See Cho and Kim (1995).

[6]See Cho (1998) for a more detailed analysis of structural problems.

[7]Firms are allowed periodic revaluation of their assets.

[8]Rivalry among chaebol was a factor that caused competitive entry into certain key industries, such as automobiles, contributing to overcapacity build-up.

[9]Until recently, the monetary aggregates subject to control by the monetary authority were M2 and M2 plus certificate of deposits which did not include CP.

[10]Strong foreign pressure, especially from the US, and Korea's ambition to join OECD forced the Government to accelerate the deregulation of foreign equity investment.

[11]Maeil Business Newspaper.

[12]High interest rates attracted little foreign investment in domestic fixed-income assets.

[13]In 1995-1997, six director-generals in charge of the International Banking and Finance Department of the Ministry of Finance and Economy were replaced.

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Appendix

Financial Liberalization in the 1990s

Liberalization of Interest Rates

The Government announced a four-stage plan for interest rate deregulation in 1991. In the first stage, most of the short-term lending rates of banks and nonbank financial institutions (NBFIs) were deregulated, while deposit rate liberalization extended only to deposits with maturities of at least three years. Interest rates on various money and capital market instruments, including issue rate on corporate bonds with maturities of over two years, were also liberalized.

The second stage, undertaken in 1993, covered all lending rates of banks and NBFIs, excluding loans financed by the Government or by the Bank of Korea's (BOK's) rediscounts. It also freed long-term deposit rates with maturities of two years or more, and the issue rates of all bonds, including financial debentures.

Part of the third stage was implemented ahead of schedule in 1994 (instead of 1995) when the minimum maturities of certificates of deposits (CDs), large-value repurchase agreements (RPs), and commercial paper (CP) were shortened. At the same time, rates on deposits with maturities of at least one year and rates on loans refinanced by BOK were liberalized. In 1995, rates on loans supported by the central bank's rediscounts were completely freed up, and deregulation of rates was extended to all deposits except demand deposits.

The last phase of the plan was implemented in July 1997. Currently, all lending rates and most rates on deposits apart from demand deposits are determined freely by financial institutions themselves.

Reduction of Entry Barriers

Entry barriers and restriction on business scope have also been steadily eased. Furthermore, the legal and institutional environment has been improved in order to encourage mergers of financial institutions.

Under the Act Concerning the Merger and Conversion of Financial Institutions in 1991, eight investment and finance companies were converted into five securities companies and two nationwide commercial banks—Hana Bank and Boram Bank. Peace Bank, the 14th largest nationwide commercial bank, was established in 1992. Provincial investment and finance companies were allowed to convert themselves into merchant banking corporations in 1994. The Citizens National Bank, a specialized bank, became a nationwide commercial bank and was renamed Kookmin Bank in 1995.

Strengthening Managerial Autonomy

Financial institutions now exercise managerial autonomy and are free to (i) select their chief executive officers, (ii) increase their capital, (iii) set dividends, and (iv) establish branches.

Business areas handled by financial institutions were enlarged. In 1990, banks' securities business was expanded to include sales of corporate bonds under repurchase agreements. Banks were allowed to act as lead underwriters for Government and public bonds in 1993, and to sell "cover bills," issued on the basis of underlying primary bills, in 1994. Banks and life insurance companies were permitted to sell Government and public bonds over-the-counter while securities companies were authorized to handle foreign exchange business within certain limits in 1995.

To promote financial intermediaries' autonomous operation of their funds, policy-based loans to specific sectors, such as export industries and small and medium enterprises, have been phased out. The overall credit control system, which requires that the ratio of a bank's loans to major business groups to its total loans does not exceed the ratio set by the Superintendent of Banks, has also been greatly streamlined.

Liberalization of Foreign Exchange

A major step forward in foreign exchange liberalization was the introduction of a market average foreign exchange rate system in March 1990. It was

adopted to eliminate any arbitrary Government influence in the determination of foreign exchange rates. Under the system, the exchange rate of the won against the dollar (market average rate) was determined by the weighted average of the interbank exchange rates applied in interbank spot transactions of the previous business day. The won exchange rates against foreign currencies other than the dollar were arrived at by arbitrating between the dollar rates of foreign currencies in the international markets and the market average rate.

On 1 July 1991, the Government eased the requirement that foreign exchange transactions be supported by documented underlying real demand. The move was meant to reduce exchange risk and develop the foreign exchange market.

A foreign currency call market was set up in December 1989, initially for trading only in dollars. It was expanded to include the yen in March 1991, the deutsche mark in September 1992, and the UK pound sterling in November 1994.

In a particularly significant development, a completely revised Foreign Exchange Management Act was passed in December 1991, changing the basis for regulation from a positive to a negative system. Under the positive system, all transactions, apart from those expressly permitted by law, were prohibited. In contrast, under the negative system, all activities are permitted except those explicitly prohibited by law. The adoption of the negative system facilitated the elimination of many restrictions.

Progress was also made in the internationalization of the won. Won settlement was allowed to a certain extent for the export or import of visible items. "Free won" accounts for nonresidents were introduced in 1993.

In June 1994, the Government took another step toward full foreign exchange liberalization. It trimmed the negative list for current transactions and also facilitated direct outward investment. The Foreign Exchange Reform Plan unveiled by the Government in December 1994 laid out a detailed schedule for (i) decontrol of current account transactions, (ii) liberalization of capital account transactions, and (iii) reform of the foreign exchange market structure, among others. As the key macroeconomic indicators, such as money supply and exchange rate, remained stable during the first phase of the plan, the Government revised and supplemented the plan to intensify its promotion of economic globalization in November 1995.

The Government further accelerated financial market opening when it joined the Organisation for Economic Co-operation and Development (OECD). For instance, it had scheduled liberalization of foreign exchange and capital account transactions to the level of advanced countries by 1999. Under the IMF program, however, it abolished capital control.

Capital Market Opening

In the 1990s, capital market opening was accelerated. Branches of foreign securities companies and joint venture securities companies were permitted on a reciprocal basis in 1991, while greater access was given to international investment company funds, and major Korean companies were allowed to undertake more issues of convertible bonds and similar securities overseas.

Beginning 16 September 1991, nonresidents who had exchanged convertible bonds into stocks were permitted to sell them and use the proceeds to purchase other stocks listed on the Korea Stock Exchange. Domestic institutional investors were also allowed to invest in securities issued by foreign governments and public organizations with a high credit standing. Securities investment trust business and investment advising were opened to foreigners in 1993.

Most notably, the stock market was liberalized. Foreign investors were allowed to invest directly in Korean stocks in 1992, subject to a general ceiling on total foreign holdings of any one company's outstanding shares. The ceiling was raised several times until it reached 55 percent at end-1997, and it was finally abolished by end-1998, according to the IMF program.

The opening of the bond market has been rather slow due to the large gap between domestic and international interest rates. In 1994, foreigners were permitted to purchase Government and public bonds issued at international interest rates in the primary market and equity-linked bonds issued by small and medium-size enterprises. Bond investment funds were set up in 1995 to give foreign investors greater indirect access to the bond market.

To counterbalance the opening of the domestic market, residents were allowed to invest in overseas securities indirectly through beneficiary certificates in 1993, and the ceiling on domestic institutional investors' overseas portfolio investment was abolished in 1995.

International organizations were permitted to issue won-denominated bonds in the domestic market in 1995. In January 1997, foreigners were allowed to purchase nonguaranteed long-term bonds issued by small- and medium-size enterprises, and, in June, nonguaranteed convertible bonds issued by large companies. In December, the opening of the bond market was accelerated under the IMF program. The ceiling on foreign holdings of bonds, including corporate and Government bonds, was abolished on 30 December.

Entry of Foreign Financial Institutions

Foreign bank branches increased rapidly in number and scale during the 1970s and 1980s, due partly to their economic advantage over domestic commercial banks. As of 1998, there were 68 foreign bank branches and 23 representative offices from 19 countries in Korea.

The Government originally encouraged the entry of foreign banks mainly to promote the inflow of foreign capital needed to finance industrial development and the current account deficit. However, as the importance of foreign capital inducement has decreased in recent years, foreign banks are expected to take on increasingly diverse roles, including that of an innovator introducing advanced banking techniques into the Korean financial sector.

Discriminatory restrictions on operations of foreign bank branches have been progressively scaled back. Foreign banks can expand their lending if the Government authorizes increases in their operating funds, upon which lending limitations are based. The upper limit on their "capital A funds" was abolished in May 1991.

Foreign banks have also been granted access to the central bank's rediscount window on the same terms as domestic banks, and permitted to issue negotiable CDs and to engage in the trust business. The ceiling on CD issue, which was gradually raised in September 1986, was finally phased out in February 1997.

BOK has continuously eliminated discrimination against foreign banks in the call market. Along with this, it has also been reducing special privileges given to foreign banks. It gradually decreased the ceiling on swap facilities in 1986 and stopped granting them to foreign bank branches established after 1988. In 1996, it further lowered the ceiling on swap facilities by 10 percent. All preferential treatment will be abolished in the long term.

In March 1985, the Monetary Board stipulated that foreign banks should extend at least 25 percent of the increment in their won lending of banking funds to small and medium-sized firms. For foreign banks that use the central bank's rediscount facilities for commercial bills, the mandatory ratio was increased to 35 percent in August 1986.

Foreign banks are allowed to compete with domestic banks on an equal footing. The economic-needs test, once used to evaluate foreign financial institutions' branch opening applications, was abolished.

Two or more branches operated by a single foreign bank are deemed a single entity within the meaning of the General Banking Act of 1991. Foreign banks with multiple branches were thus given much greater flexibility in their business, such as in management of CD issuance within the authorized limits. Foreign banks and securities companies can set up subsidiaries in Korea beginning March 1998.

Table A1: **Macroeconomic Conditions Under the IMF Program**

Date of Program	Fiscal Deficit (% of GDP)	Money Growth (M3) (W trillion) (% change year-on-year)	Current Account ($ billion)	Foreign Reserve ($ billion)	Inflation (%)	GDP Growth Rate (%)
3 Dec 1997	0.8 or Small surplus	71 at end-Dec 1997 (Reduction from an estimated 16.4% at end- Sept 1997 to 15.4% at end-Dec 1997, and to a rate consistent with the inflation objective in 1998)	4.3 (1.0% of GDP) in 1998 2.1 (0.5% of GDP) in 1999	21 (End-Sep 1998)	5.0 (1998) 4.6 (1999)	3.0 (1998) 5.6 (1999)
7 Feb 1998	0.8	72 in the first quarter of 1998 (13.5%) 75 in the second quarter (14.1%) 77 in the third quarter (13.9%) 79 in the fourth quarter (12.5%)	8 (2.5% of GDP)	30 (End-Dec 1998)	9.0	1.0 (zero or negative growth is possible)
2 May	1.2 (1.75 will be permitted)	Same as in February	21-23 (7% of GDP)	32 (end-June 1998) 34 (end-Sep) 41 (end-Dec)	below double digits by yearend	1.0
29 July	4.0	78 in the third quarter of 1998 (14.0%) 79 in the fourth quarter (13.5%)	33-35	End-Dec target is same as that of May (but projected to be 43)	9.0	4.0

Source: Ministry of Finance and Economy.

Structural Reform Measures

INITIAL PROGRAM: DECEMBER 1997

Trade Liberalization

A timetable will be set in line with World Trade Organization commitments to eliminate (i) trade-related subsidies, (ii) restrictive import licensing, and (iii) the import diversification program. Steps will be taken to streamline and improve the transparency of import certification procedures.

Capital Account Liberalization

Foreign financial institutions will be allowed to participate in mergers and acquisitions of domestic financial institutions in a friendly manner and on equal footing. By mid-1998, foreign financial institutions will be allowed to establish bank subsidiaries and brokerage houses.

Legislation will be submitted to the first special session of the National Assembly to harmonize the regime on equity purchases with OECD practice.

The ceiling on aggregate foreign ownership of listed Korean shares will be increased from 26 to 50 percent by end-1997 and to 55 percent by end-1998. The ceiling on individual foreign ownership will be increased from 7 to 50 percent by end-1997.

By end-February 1998, other capital account transactions will be liberalized by (i) easing foreigners' access to domestic money market instruments and the corporate bond market and (ii) simplifying the approval procedure for foreign direct investment.

A timetable will be set by end-February 1998 to eliminate restrictions on foreign borrowing by corporations.

Corporate Restructuring

Corporate balance sheet transparency will be improved by enforcing accounting standards in line with generally accepted accounting practices. The commercial orientation of bank lending will be fully respected and the Government will not intervene in bank

management and lending decisions. To strengthen market discipline, bankruptcy laws will be allowed to operate without Government interference.

The "real name" system in financial transactions will be maintained, although with possible revisions. By late 1998, the restructuring of corporate finances will be encouraged by, among others, (i) reducing the high debt-to-equity ratio of corporations and (ii) changing the system of cross-guarantees within conglomerates.

Financial Sector Restructuring

Legislation will be enacted to (i) set up a strong and independent supervisory agency, (ii) strengthen and consolidate prudential supervision, and (iii) increase transparency.

Time-bound action plans will ensure that there will be (i) an orderly exit of nonviable institutions, (ii) procedures and policies to deal with weak but viable financial institutions, and (iii) measures to improve the commercial orientation and risk management of the financial sector.

The National Assembly should pass the following:

- A revised Bank of Korea Act, providing for central bank independence, with price stability as its main mandate.
- A bill to consolidate supervision of all banks, merchant banks, securities firms, and insurance companies into one agency with operational and financial autonomy.
- A bill requiring that corporate financial statements be prepared on a consolidated basis and certified by external auditors.

Troubled financial institutions will be restructured and recapitalized within a specified time frame. The exit strategy will (i) require troubled institutions to present a viable rehabilitation plan and (ii) close insolvent financial institutions and those failing to carry out their rehabilitation plans within specified periods.

Domestic and foreign institutions may engage in mergers and acquisitions.

A timetable will be set for all banks to meet or exceed Basle standards.

All forms of assistance to banks, including that coursed through the Korean Asset Management Corporation (KAMCO) and deposit insurance funds, will be provided only as part of viable rehabilitation plans.

Blanket guarantees will be phased out and replaced by a limited deposit insurance scheme.

Merchant Banks

The foreign exchange operations of nine technically insolvent merchant banks will be transferred to other institutions. (The banks were suspended on 2 December 1997, with depositors fully protected.)

The consolidated deposit insurance corporation will issue bonds to raise the funds needed to meet the deposit insurance obligation. The Government will guarantee these bonds and bear the interest costs.

The Government announced that it would propose amendments of laws to allow foreign financial institutions to participate in mergers and acquisitions of domestic financial institutions. Foreign participation in merchant banks is allowed up to 100 percent.

The Government did the following:

- It immediately placed the nine suspended merchant banks under the control of the Ministry of Finance and Economy (MOFE) and required each to submit a rehabilitation plan within 30 days. If MOFE fails to approve such plan, the institution will have its license revoked and will not be eligible to participate in the KAMCO program of bad-asset purchase or receive any financing from the deposit insurance fund.
- It monitored the banks' rehabilitation in close consultation with IMF. If the head of the supervisory authority concludes that rehabilitation has not been successful within three months, the institution will be closed.
- It required the remaining merchant banks to present by 31 December 1997 a program of recapitalization or downsizing that will allow them

to meet at least a 4 percent capital requirement ratio by 31 March 1998, 6 percent by 30 June 1998, and 8 percent by June 1999. Failure to obtain supervisory approval of the program or to meet the schedule will lead to suspension of their foreign exchange business and possibly revocation of their license.

- It required the two distressed commercial banks to prepare a plan to meet the Basle capital standard within four months after approval of the plan. It required other commercial banks to make full provisioning for their impaired assets and for their securities losses by end-March 1998. The banks will agree on a timetable with the supervisory authority by June 1998 to achieve current minimum capital standards within a time frame of six months to two years.
- It required that the rehabilitation plans submitted by financial institutions to supervisory authorities should (i) specify the sources and amounts of new capital, a clear schedule to meet Basle capital adequacy standards and provisioning requirements, and confirmation from the supplier of funds; (ii) indicate changes in management and ownership; and (iii) present a business plan.

The Government proposes to do the following:

- In consultation with IMF, it will prepare a comprehensive action program to strengthen financial supervision and regulation in accordance with international best-practice standards.
- It will subject specialized banks and development institutions to the same prudential standards that apply to commercial banks and require external audit on their financial statements.
- It will closely monitor Korean banks' overseas branches' borrowing and lending activities to ensure that they are sound. New injections of foreign exchange by BOK to Korean commercial banks or their overseas branches will carry a penalty rate of 400 basis points above the London interbank offered rate. BOK's deposits with nonresident branches and affiliates of domestic financial institutions will not be increased after December 1997, but will be reduced gradually as soon as circumstances permit.

Table A2: Monetary Sector Indicators

Outstanding stock	Limit (W trillion)
Net domestic assets[a]	
End-September,1997	1,721
End-December,1997 (performance criterion)	10,950
Percentage change	536%
Reserve money	
End-September 1997 (actual)	22,275
End-December 1997 (indicative limit)	23,270
Percentage change	4.5%
Broad money (M3), 1996	614,961
End-September 1997 (projected)	688,760
End-December 1997 (indicative limit)	709,775
Percentage change (from 1996 to end-Dec 1997)	15.4%

[a] Net domestic assets are defined as the difference between reserve money and the won equivalent (converted at program exchange rates) of net adjusted international reserves as defined in the program.
Source: Ministry of Finance and Economy.

- It will adjust the ceiling on net domestic assets and the indicative limit on reserve money to comply with required reserve ratios.

Table A3: Net International Reserves of the Bank of Korea

Item	Floor ($ billion)
End-September 1997 (actual)	21.1
End-December 1997 (performance criterion)	11.2
Percentage change	(46.9%)

( ) = negative value
Source: Ministry of Finance and Economy.

Korean Securities Market in Transition

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Executive Summary

Although the Korean capital market has grown remarkably in the past three decades, it lacks a firm foundation for continuous growth and development. The ratio of total stock market capitalization to the gross domestic product (GDP) remains lower in Korea than in other advanced economies, indicating that the stock market has high growth potential. However, most market infrastructure cannot support an effective market mechanism.

The Government's overall economic reform and the subsequent International Monetary Fund (IMF) bailout program in 1997 have significantly changed the capital market. Many of the reforms, including improvement of corporate governance, the accounting system, and minority shareholder protection, will affect the capital market in important ways. The elimination of all foreign exchange regulations and foreign investment ceilings will give foreign investors a greater role and bring more competition into the capital market.

To cope with the changing market environment, the securities regulatory system has undergone major changes since 1998. Four supervisory agencies were consolidated. The Financial Supervisory Commission (FSC) now supervises the entire financial sector, including banking, securities markets, and the insurance industry. However, many issues remain to be ironed out for the new system to work effectively.

Securities Regulatory System

The most important changes in the capital market were brought about by the Financial Reform Law of 1997. The "Big Bang" style of financial reform placed the securities supervision function under the jurisdiction of FSC. Most of the supervisory functions of the Ministry of Finance and Economy (MOFE) were also transferred to FSC. However, MOFE, once the ultimate authority over financial markets, maintains some regulatory power, causing conflict and overlapping with FSC regulations. To make supervision more efficient, FSC should carry out the regulatory functions and MOFE should focus on policy making.

The securities market, trading mechanism, and regulatory system must conform with international standards. As globalization proceeds, regulations and restrictions on securities trading should be eased. To enhance the market's operational efficiency and to maintain the fairness and competitiveness of trading, a comprehensive surveillance system to detect unfair trading and fraudulent activities should be developed. Even greater emphasis should be put on developing better audit trails and on policing trader activities.

Equity Market

Capital market institutions, such as the stock exchange, the securities dealers' association, and securities companies, do not perform their roles independently or responsibly in the initial public offering (IPO) process. They limit securities companies' business percipience in underwriting and hinder the healthy growth and maturity of a self-regulatory, self-sustaining, and autonomous capital market. FSC should enforce compliance of related institutions in the IPO process. The process of going public and listing in the stock market is still overregulated, especially in the pricing of a new issue. Since the pricing of an IPO issue is the most important function in the securities market, it is recommended that remaining restrictions on IPO pricing be removed or eased.

The closed ownership structure of the *chaebol* (conglomerates) has been cited as a major cause of the economic crisis, as it prioritized tight control of the firm at the expense of economic efficiency. To attract investors to new issues, market corporate governance structure must be improved and management transparency increased. All listed companies are now required to appoint independent, outside directors to their board. For the outside directors to function as an independent checking force, however, the minority shareholders must have representation on the board. The introduction of a man-

datory cumulative voting system and the strengthening of minority shareholders' rights by lowering the threshold of share ownership (0.01 percent of outstanding shares to file a lawsuit) to a single share are therefore recommended.

Another significant influence on the corporate governance structure may come from institutional investors, specifically the investment trust companies (ITCs), which have huge holdings of domestic stocks, and foreign investors, which now have a free hand in the stock market. ITCs are now allowed to vote on the shares in their trust account (i.e., shares bought with their customers' entrusted money). However, since most of them are under the influence of either the Government or the chaebol, in order to guarantee their independence and neutrality, their voting rights should be restricted to cases where the minority shareholders' interests are seriously threatened or management acts against the shareholders' interests.

Bond Market

The types of Government bonds must be simplified by consolidating various issues into a small number of categories in order to significantly increase liquidity in the secondary market. It is also important to standardize the issuing terms of Government bonds' coupon rates and maturities so that fungible issues can easily be added to them and a benchmark bond can be developed. To introduce a system of issuing Government bonds at the market rate, the current auction method should be altered to allow issuance of Government bonds at a discount or premium with the coupon rate fixed in advance. The primary dealer system will play a pivotal role in bond market development. Foreign securities houses should be allowed to participate as primary dealers.

The creditworthiness of issuers is not fully reflected in the yield structure of corporate bonds for two reasons: (i) corporate bond issues are backed by real estate or physical facilities and (ii) the country lacks a reliable bond rating mechanism. To improve the bond rating system, more competition should be brought into the market by periodically disclosing the bankruptcy ratios of bonds rated by various rating agencies and by encouraging foreign credit rating agencies to participate in the bond market.

Financial Institutions and Investors

The new capital adequacy requirement, the net operating capital ratio (NOCR), is designed to prevent securities companies from failing again. It should be applied to all securities companies without exception, and violators must be penalized promptly. An independent auditor may be employed to ensure that the rules are strictly enforced. Financial institutions should be encouraged to establish an internal risk management organization with a clearly defined role. Accounting and audit practices should be improved so that any off-balance-sheet transactions of material importance will be reported and evaluated.

Many financial institutions are still under the influence of the Government or their chaebol parent companies. Establishing a financial holding company may ensure their independence, but only after installing a safety device, such as a risk management system and firewalls between different financial institutions.

In a market downturn, ITCs customarily have supplemented lower-than-expected returns on trust accounts by drawing on their own accounts, causing deterioration of capital bases. Although it is hard to estimate the aggregate losses on the trust accounts, most large ITCs' capital bases are nearly depleted and need restructuring. One solution is to wait until the capital market recovers so that the ITCs' asset values would be higher. Although a wait-and-see policy is not a wise one, the Government has little choice as the effect of closing down a major ITC would be economy-wide and catastrophic. Deregulating the ITC industry and putting a stop to treating financial institutions as policy devices will help ITCs recover. The establishment of US-style mutual funds will help restructure and develop the asset management industry. However, restricting fund types to

closed-end ones in order to minimize shifts of funds from ITCs to newly established mutual funds could delay the industry's restructuring.

Government policy should focus on replacing most regulations on ITC management with capital adequacy requirements and making the asset management industry more competitive by applying the free market principle to entry, exit, competition, business scope, and management appointment. Investor protection and system stability are other important issues for ITCs. The book-value-based accounting system in valuation of a trust unit tends to overvalue asset prices in a bearish market, inducing customers to redeem their investment funds, forcing ITCs to sell their stocks, and bringing down prices. To protect innocent customers and to prevent large-scale redemption demands, the accounting system must be replaced by a mark-to-market valuation.

Market Infrastructure of the Securities Market

The Korea Securities Depository (KSD) functions as the central depository, but its deposit ratio has not been satisfactory. As a higher central deposit ratio is a precondition for the wholesale dematerialization of the securities issuing system, some regulations requiring issuance of physical certificates, and the narrow definition of "securities," should be changed. Measures should be taken to enforce central deposit and dematerialization of securities issuance, including (i) defining securities to include the concept of proxy securities, (ii) promoting KSD as the central depository, and (iii) reinstating the real-name system. Korean settlement organizations should emulate their counterparts in other advanced capital markets and redefine and adjust their roles in order to integrate their settlement function.

The disappointing performance of chaebol-owned nonbank financial institutions (NBFIs) during the financial crisis suggests that they should be protected from their parent companies by measures, such as firewalls and Chinese walls, which will prevent them from exchanging manpower, funds, information, and other managerial resources. As too many securities companies compete in a small market, they are encouraged to pursue fundamental structural changes in their management strategies. Since many have been established for reasons other than profit, their parent companies will be critical in deciding the fate of the troubled securities companies. To expedite the restructuring of the industry, it is recommended that the new capital adequacy requirement be strictly imposed in order to weed out inefficient securities companies.

Introduction

The Korean capital market has grown remarkably in the past three decades. Capitalization of the stock market increased from W79 trillion in 1990 to its highest level of W151 trillion in 1994, almost a twofold increase in four years or an average annual growth rate of 17.6 percent. Due to the sluggish economy and lower stock prices, however, market capitalization has been declining steadily since 1995. Total market value fell by 40 percent in 1997 to W71 trillion from W117 trillion in 1996.

The ratio of total market capitalization to gross domestic product (GDP) remains lower in Korea than in other advanced economies. It rose from 33.8 percent in 1991 to 49.3 percent in 1994, but has been declining since then. GDP rose to W421 trillion in 1997, up by 8 percent from W390 trillion in 1996. Market value in 1997 was not more than 17 percent of GDP, down from 30 percent in 1996, indicating that the stock market has high growth potential.

The recent financial crisis and subsequent International Monetary Fund (IMF) bailout program significantly changed the capital market. The Government is accelerating overall economic reform aimed at improving the market mechanism and making the economy more transparent. It has introduced some important policy measures to allow the free-market principle to work. If the capital market is to change

substantially, however, the *chaebol* must improve their corporate governance, accounting system, and minority shareholder protection.

In order to attract more foreign capital, the Government abolished all restrictions on foreign investment in stocks and bonds in 1998. Foreign investors can now invest freely in all kinds of securities, including stocks, bonds issued by the Government and corporations, and even unlisted over-the-counter (OTC) bonds. The market for short-term financial products, such as certificates of deposit (CDs), repurchase agreements (RPs), and notes and cover bills, was completely opened to foreigners in May 1998. Foreigners' individual and aggregate investment ceilings for Korea Composite Stock Price Index 200 (KOSPI) futures and options were also removed that month. As the Government was previously so cautious about opening the capital market, these drastic changes caught the domestic financial industry by surprise and will inevitably create a more competitive environment.

Under the Financial Reform Law of 1997, Financial Supervisory Commission supervises the entire financial sector. The securities regulatory system has been undergoing major changes since April 1998.

This report (i) discusses some of the important issues facing Korean capital markets today, (ii) examines recent changes taking place in the country, and (iii) focuses on policy recommendations. It is not intended to be an exhaustive study of capital market issues. Some of the changes and policy measures discussed here are in progress and competing views exist on some of them.

The Securities Regulatory System

Background

The most important changes in the capital market are based on the Financial Reform Law. The Government's previous reform efforts were continuous but ineffective, mainly due to the severe conflicts of interest among Government authorities and different financial sectors. Gradual reform was thought to be impossible, and a "Big Bang"-style reform process seemed inevitable.

MOFE drafted the law based on the recommendations of the Presidential Commission for Financial Reform. The law contains a wide range of financial reform measures, including a new regulatory system for the securities market.

The capital market's basic administrative and regulatory structure was completed in 1976, when the Securities and Exchange Law underwent extensive revision. The Securities and Exchange Commission (SEC) and its executive body, the Securities Supervisory Board (SSB), were established on 19 February 1977, pursuant to the Securities and Exchange Law. The new securities regulatory system, although quite different from the previous one, incorporates most of the old system's basic features. As financial reform is still in progress, it is important to review the background and basic features of the current securities regulatory system in order to better understand the ongoing changes.

The New Regulatory System

The Financial Reform Law adopts a consolidated financial supervisory system, placing the responsibilities of securities market supervision under the jurisdiction of FSC, which was established on 1 April 1998. The commission is under the jurisdiction of the prime minister, instead of the minister of finance and economy, to ensure its independence and neutrality. In 1999, all separate supervisory executive bodies were consolidated into a single organization—the Financial Supervisory Service (FSS), FSC's executive arm—that now supervises the entire financial sector, including banking, the securities market, and the insurance industry. MOFE has already transferred its supervisory function over nonbank financial institutions (NBFIs) to FSC.[1]

Because the securities market is unique, however, its supervision will be left to the Securities and Futures Commission (SFC), an independent regulatory organization under the umbrella of FSC. SFC is headed by the FSC vice-chair and will have the authority to give executive orders directly to FSS and to monitor FSS activities.

Regulatory Bodies and Their Roles

MINISTRY OF FINANCE AND ECONOMY

Once the ultimate authority in the securities market, MOFE has passed on most of its supervisory functions to FSC. It maintains the authority to draft laws, regulations, and rules related to the securities market. It grants business licenses to new financial institutions. It also has the right to request financial institutions to submit necessary documents and supporting data. Hence, although its power to supervise the securities market and related institutions is limited, it can still regulate them through moral suasion or administrative guidance, which may conflict or overlap with FSC's powers.

FINANCIAL SUPERVISORY COMMISSION

A council system organization, FSC consists of nine commissioners, including a chair and vice-chair. The chair and vice-chair are both appointed by the President. FSC has three ex-officio commissioners: the MOFE vice-minister; the Bank of Korea (BOK) deputy governor; and the KDIC president. Of the remaining four commissioners appointed by the President, one is standing, the other three nonstanding. The FSC chair represents the commission and presides over its meetings. The chair also serves as the governor of FSS, FSC's executive body. FSC is the ultimate authority in the supervision of the financial market. It promulgates and amends rules, although MOFE still maintains the authority to draft new laws and regulations. FSC also (i) enforces the laws on financial supervision, (ii) monitors and audits financial institutions, and (iii) takes appropriate disciplinary action against those who violate the law.

SECURITIES AND FUTURES COMMISSION

A separate and independent regulatory body, SFC was established to decide on major issues related to the securities market. It inherited most of SEC's responsibilities. It is composed of five commissioners, including the chair, who is the FSC vice-chair. Four commissioners, one standing and three nonstanding, are appointed by the President on the recommendation of the FSC chair.

FINANCIAL SUPERVISORY SERVICE

An executive body established in 1999, FSS takes orders from FSC and SFC. It executes the resolutions of commission meetings and supervises the financial markets under the direction of the commission. It consists of the governor (who also chairs the commission), four or fewer deputy governors, nine assistant governors, and one auditor.

SELF-REGULATORY ORGANIZATIONS

The two most important self-regulatory organizations (SROs) in the capital market are the Korea Stock Exchange (KSE) and the Korea Securities Dealers Association (KSDA). KSE is a nonprofit organization with 38 regular members, including 7 foreign or joint venture securities companies and 5 special members as of April 1998. It is authorized to supervise and regulate the trading of stocks and derivative securities to ensure that the market is fair and orderly. It monitors abnormal trading activity and its member firms' and their customers' compliance with KSE rules and regulations. It cooperates with SFC in investigating suspected illegal trading, focusing on market manipulation and insider trading. However, SFC's investigative power often overlaps with KSE's, giving rise to an important administrative issue that the new securities regulatory system must resolve. SFC's enforcement power also extends to financial and operational requirements, sales practices, record keeping, and supervisory deficiencies of member firms, which is another source of conflict between SFC regulation and KSE self-regulation.

KSDA was formed in 1953 to (i) coordinate its members' activities, (ii) mediate conflict among them, and (iii) foster the securities market through self-regulation. It has not been considered satisfactory as an SRO because of MOFE's strong influence over and frequent intervention in it. As the exchange market becomes more sophisticated and specialized, Government regulation alone will not be able to cover all market activities. Self-regulation complements Government regulation. Independent and accountable SROs must thus be given an even greater role in the future. Regulatory bodies must concentrate on supervision, deregulate other aspects, and hand them over to SROs. Only then will the capital market be weaned from the Government and regulatory bodies.

Future Challenges and Issues to be Resolved

The new securities regulatory system appears to be different from the previous one but the basic framework and content of regulation have not changed greatly. Although most of its regulatory functions have been given to FSS, MOFE retains its power to draft laws and rules. What is important is the scope and content of regulation, not who is in charge of it. The high entry barriers to the capital market, such as prohibitive license fees in mutual fund industries, discourage competition among different financial products. Regulations and entry barriers should be eased to promote competition in the financial market. Policy should encourage competition among various financial products, not among different financial agencies. The soundness of financial institutions must be strictly monitored. Regulations overlap yet are inadequate to maintain the institutions' financial soundness. One positive development is the upgrading of some standards. For example, commercial banks now have to maintain a minimum of 8 percent equity, as required by the Bank for International Settlements (BIS), and securities companies are required to have a net operating capital ratio (NOCR) of 150 percent or more, as recommended by the International Organization of Securities Commissions (IOSCO). Visible improvement in regulation is expected soon as FSC completes the financial and corporate restructuring.

Increasing globalization of the securities market requires a regulatory system that is up to international standards. The Government should enhance the market's operational efficiency by detecting unfair trading and by preventing possible violations with an advanced and comprehensive surveillance system. KSE electronically monitors and examines all trading by member firms, their branches, and their customers using the Comprehensive Market Surveillance and Information System (COSIS), which is similar to the systems of the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX), which are the most advanced in the world.

"Securities" are defined by the Securities and Exchange Law and its Enforcement Decree.[2] Only those products designated as securities by MOFE or by presidential decree can be introduced into the securities market. This restriction has been a major obstacle to the development of new financial products. Derivatives such as stock index futures and options were added to the list of securities following the 12th amendment of the Securities and Exchange Law. In order to better cope with changing market conditions and to allow financial innovations to take place, the definition of securities should be as inclusive as that of US laws. The Futures Trading Act of 1995 covers futures trading but not derivative securities based on stock indexes, which may cause conflict in the derivatives market and should be addressed soon.

The Equity Market

Issues in the Primary Market

If the primary market is to reform its capital-raising function, corporations should be able to issue securities with the utmost freedom. Regulations on securities issuance should be eased and the initial public offering (IPO) procedure improved. A clear-cut dis-

tinction should be made between the concepts of going public and of listing on the stock exchange, so that corporations can raise the necessary capital in the market without listing their securities on the stock exchange. At the same time, corporate management transparency and governance structure should be improved to protect the investing public.

Initial Public Offering Procedure

There is no clear-cut distinction between going public and listing in Korea. All corporations that wish to list their shares on KSE must register with FSC for the purpose of either going public or registering with the OTC market—the Korean Securities Dealers Association Automated Quotation (KOSDAQ). FSC provides guidelines on corporate management and disclosure requirements before securities issuance. The documents to be filed with FSC include the list of shareholders and financial statements, which must be available for public inspection for a year. This regulation applies to the issuance of all securities, not just IPOs. It does not mean that a corporation must wait for a year before an IPO. An IPO can be initiated within or after the one-year period of public disclosure. It usually takes one to two years starting with registration with FSC.

Once corporations register with FSC, they can take one of four approaches to listing on KSE:

- List on KSE after an IPO that meets KSE listing requirements.
- List on KOSDAQ, wait until the corporation meets the stricter KSE listing requirements, and then list on KSE.
- List on KOSDAQ, then directly list on KSE.
- Skip the IPO process if the corporation is State-owned, and list on KSE immediately after FSC registration.

Since 1987, 484 new companies listed on KSE and 80 percent of the firms took the first approach, bypassing the OTC market. In 1997, however, 17 out of 23 newly listed firms chose the second approach. The third approach is usually reserved for banks. A private nonfinancial company, a State-owned commercial bank, and three private commercial banks followed the third approach. Only two State-owned companies opted for the fourth approach.

If a corporation registers with FSC for the purpose of going public, it must select a securities company to underwrite its IPO issue, analyze its stock, and evaluate the stock price. Financial statements of the corporation for the last three years must be audited by an independent auditor; however, the most recent financial statements must be audited by an auditor designated by the Financial Supervisory Service (FSS). Then the corporation may file a registration statement on the new issue offering. To avoid any unforeseen situation, issuers discuss all relevant matters with FSC staff before filing their application. The application form asks questions related to investor protection, such as the underwriter's opinion on the issue and analysis of the stock, the opinion of the auditor, and financial statements. Last, the issuing corporation must submit to FSC a prospectus and a report on the result of the issue offering.

The process of going public and listing is spearheaded by FSC, not by the stock exchange, securities companies, or companies that desire to be listed. In order to develop a healthy, self-sustained, and autonomous capital market, it is important for capital-market-related institutions to fulfill their roles independently and responsibly. It is a common belief that the process of going public and listing on KSE or KOSDAQ is overregulated. FSS, which has the authority over securities companies, decides whether an applicant is fit to go public and list on KSE or to list on KOSDAQ.

This type of regulatory environment may mislead the investing public into thinking that the Government is fully responsible for firms going public and therefore for the consequences of investing in the stock market. Under the Securities Exchange Law, KSE makes a final decision on listing (Article 88) and KSDA makes a final decision on listing on KOSDAQ (Article 172). However, the fact that FSS makes all the

decisions for KSE and KSDA impedes not only the growth and maturity of the self-regulatory environment of the capital market but also the securities companies' business acumen in underwriting.

The regulatory practice on going public was developed in the early stage of capital market development, when the Capital Market Promotion Act of 1968 and the Public Corporation Inducement Act of 1972 encouraged companies to go public. While the practice influenced the market positively then, the time has come for SROs to bring harmony and autonomy to the capital market. Their supervisory and executive roles must be segregated so that they check and balance each other, enhancing the market's efficiency. Therefore, FSC regulations related to going public must be eased and the power to grant permission to enter the market placed under the jurisdiction of KSE, the market provider.

Listing and Delisting on the Korea Stock Exchange

As the distinction between going public and listing is not clear-cut, when SFC decides that a corporation is qualified to go public, market participants interpret it to mean that the corporation is to be listed automatically in the secondary market—KSE.

Article 2 of the Securities and Exchange Law defines going public as the solicitation of an offer to acquire newly issued securities on uniform terms and conditions determined by FSC. Article 54 states that FSC may issue to a securities company such orders as are necessary to prevent excessive speculative transactions of securities or to protect the public interest or investors pursuant to the provisions of the presidential decree adjunct to the Securities and Exchange Law. FSC determines the qualification of an IPO issuer, and KSE simply rubberstamps the listing approval, although KSE is an SRO and makes a final decision on listing application.

When a listed company meets a delisting criterion, on average it takes six to seven years for it to delist. First, it is disclosed to the market that the firm may be designated as a so-called "administrated" company, which means that the market gives it special attention for a period of time to allow it to get back on its feet. If it does not improve after the recovery period, it is finally delisted. Another reason for allowing a recovery period is to protect the firm's current stockholders by providing liquidity.

As the stock market has been troubled since the fourth quarter of 1997, administrated companies now make up 18 percent of total listed companies (136 out of 773). Since they are not immediately delisted, they pose a moral-hazard problem. Their stockholders have ample opportunity to sell off their stocks or even to speculate on various rumors. In other words, not delisting administrated companies may lead to a lack of investor vigilance and responsibility and to distortion of market discipline. An increase in the number of the administrated companies also tends to distress the general atmosphere of the market and to misrepresent the overall market trend, which may discourage potential investors. It also hinders healthy firms from listing and obtaining necessary funds from the market. Administrated companies create an oversupply of stocks in the market and thus restrain new listings. It is strongly recommended that the grace period given to administrated companies be shortened or totally abolished to allow new, healthy companies to fund profitable investment projects and to reward responsible investors.

Improving Corporate Governance and Management Transparency

Poor corporate governance is a major culprit responsible for the financial crisis. Since most firms, especially the chaebol, are controlled by a few large shareholders, their management has not been subjected to checks and balances, resulting in inefficient overinvestment through heavy debt financing that has contributed to the crisis. The chaebol's ownership structure has long been at issue. The inside shareholding of the 30 largest chaebol averaged 47 percent as of December 1995.[3] The top five groups

have even greater inside shareholding on average. Inside shareholding establishes the ground for tight and closed family control, which results in economic inefficiency and a low degree of disclosure and transparency. In order to attract investors to the new issues market, corporate governance must be improved and management become transparent. The closed ownership structure has encouraged the chaebol to rely heavily on debt financing instead of equity financing. As the new economic reform plans discourage debt financing, equity financing will emerge as an alternative, requiring an improved IPO process and a more efficient secondary market.

Listed companies are now required to have boards, one fourth of whose members must be independent outside directors. As of May 1998, more than 620 outside directors had been appointed. However, since they were appointed, they are strongly influenced by the major shareholders (or the "owners"). The board must find a way to trim the majority shareholders' influence and to strengthen the role of the board meeting. Minority shareholders have virtually no representation during board meetings since the board is elected under the majority voting system. The cumulative voting system has been introduced to let minority shareholders have some representation.

To further strengthen minority shareholders' rights, the minimum share ownership required to raise issues with the company management has been reduced. Legal procedures to protect minority shareholders' interest were once restrictive and costly, but as of 25 May 1998, shareholders need to have only 0.01 percent of shares outstanding to file a lawsuit against members of the board. To call a shareholders' meeting or to inspect the company's accounting books, shareholders must have 3 and 1 percent, respectively, of shares outstanding. These thresholds must be lowered further to a single share to conform with international practice.

Another notable change in corporate governance is expected soon. In September 1998, the National Assembly passed a law allowing investment trust companies (ITCs) to exercise voting rights on the shares they bought with their customers' money. In the past, institutional investors, including ITCs, were permitted to practice only "shadow voting."[4] With their huge holdings of domestic stocks, ITCs will emerge as a new influence over corporate governance. However, one critical problem remains: ITCs have a governance problem of their own—they are under the strong influence of either the Government or the chaebol. Therefore, measures to guarantee ITCs' independence and neutrality in the exercise of their voting rights should be introduced to avoid either or both Government and chaebol influence on corporate decisions.

Since May 1998, foreigners have been able to acquire, without limit, the shares of any listed company without the approval of its board of directors, except those of strategic industries such as steel, communications, and electricity. No restrictions apply to foreigners in the area of securities investment. Foreigners may acquire as many shares of both listed and nonlisted companies as they wish. Previously, the Capital Inducement Act prohibited foreigners from owning more than 10 percent of shares outstanding without board approval. The limit was gradually increased to 55 percent before it was abolished in 1998. Foreigners may now take over a company without the agreement of the company management: in other words, hostile takeover of domestic companies by foreign institutions is fully allowed. The so-called "50 percent plus 1 share" rule[5] has also been abolished, and MOFE approval is no longer needed to acquire large companies whose asset values are W2 trillion or more. As a result, more merger and acquisition (M&A) activities by foreign as well as domestic investors will take place in the capital market. However, domestic investors are subject to stricter regulations on their hostile M&A activities than their foreign counterparts. It is recommended that domestic investors be given the same treatment as foreigners.

The Bond Market

The bond market has grown rapidly. As of April 1998, more than 15,000 bond issues worth over W248 trillion were listed on KSE (Table 1). Despite its size and the variety of its issues, the bond market is still in the primitive stage of development, and a market mechanism is not fully in place. As all restrictions on foreign investment were abolished in February 1998, strong reform measures are urgently needed to make the bond market more efficient and competitive. Many bonds are listed on KSE and traded OTC because investors, including foreigners, prefer them as (i) they are perceived as quality securities, (ii) their traded prices are disclosed to the public, and (iii) they are the only bonds that ITCs may include in their funds.

Government Bond Market

Since November 1993, the Government has increased its efforts to issue bonds at interest rates reflecting market rates. However, a substantial gap still exists between the interest rates on Government bonds in the primary market and the yields in the secondary bond market. As a result, most Government bonds have to be issued by way of forced subscription to individuals or compulsory distribution to underwriting syndicates, further distorting the market mechanism. For example, when individuals register their houses, they must buy Type I and Type II National Housing Bonds. When they register their cars, they must purchase Seoul and Local Subway Bonds and Local Development Bonds. Government bonds must be issued at market interest rates. Compulsory bond buying is one of the biggest obstacles to the development of the bond market.

Government bonds are issued pursuant to the Budget and Finance Law and must be approved by the National Assembly. MOFE is the issuing authority[6] and guarantees the payment of principal and interest on Government bonds. However, it is specific funds such as the National Debt Management Fund, Grain Security Fund, and Foreign Exchange Fund that actually issue the bonds and at coupon rates that reflect market interest rates. As a result, too many kinds of Government bonds exist in the market, each in amounts insufficient to maintain liquidity in the secondary market. The issuance and repayment of Government bonds are done by various funds and are not carried out systematically or comprehensively. Timing and size of bond issuance are determined primarily by the financing needs of the issuing fund rather than the market's overall financial situation. This lack of flexibility makes it difficult to adjust Government bond issuance to market conditions. On 20 August 1998, MOFE announced that the Grain Security Fund

Table 1: Key Statistics for Listed Bonds

	Government and Public Bonds			Corporate Bonds			Total	
End of period	No. of Issues	No. of Listed Issues	Amount Listed (W million)	No. of Issues	No. of Listed Issues	Amount Listed (W million)	No. of Listed Issues	Amount Listed (W million)
1990	24	2,648	29,049,113	1,603	4,243	22,068,214	6,891	51,117,327
1991	24	2,831	32,249,691	1,862	5,527	29,241,009	8,358	61,490,700
1992	46	2,943	32,446,520	2,070	6,496	32,696,632	9,439	65,143,152
1993	50	3,082	41,359,077	2,234	7,477	37,573,624	10,559	78,932,702
1994	56	3,712	56,620,715	2,068	7,590	45,876,385	11,302	102,497,099
1995	69	4,671	69,542,162	2,024	8,050	56,455,874	12,721	125,998,036
1996	129	5,808	102,419,220	1,977	8,762	73,120,482	14,570	175,539,701
1997	160	7,717	138,092,394	1,827	8,170	86,024,195	15,887	224,116,589
1998[a]	149	7,614	157,152,426	1,760	7,693	91,017,847	15,307	248,170,273

[a] As of April.
Source: Korea Stock Exchange, May 1998.

would be merged with the National Debt Management Fund before yearend. It also reviewed the possibility of stopping the issuance of the National Housing Bond.

Government bonds are issued on the basis of "restricted auction." MOFE announces the planned issue amount, maturity, and bond type five days before the auction and underwriting. Auction takes place on Monday and bonds are issued on Wednesday in lieu of payments. The auction is restricted in the sense that only an underwriting syndicate consisting of institutional investors (no primary dealers) participates in the auction, and the lowest acceptable price (the maximum yield) is set by the issuing authority based on market conditions before the auction. In 1999, retail individual investors were allowed to participate in bond auctioning.

In order to promote the Government bond market, it is necessary to classify Government bonds, now categorized by issues, into a smaller number of categories based on maturity. For example, Government bonds may be classified as short-term (due within one year), medium-term (maturing in one to five years), and long-term (five years or longer). Maturities range from 1 year or less for Treasury Bills and Monetary Stabilization Bonds, to 20 years for Type II National Housing Bonds. But most Government bonds mature in one to three years.[7] Reducing bond types will enable the Government to increase the amount per type of bond and ensure liquidity in the market.

It is also important to standardize the issuing terms of Government bonds—that is, coupon rate and maturity—so that fungible issues can easily be added to the existing bonds. Standardization of issuing terms will make it possible to increase the issuing amount for a single Government bond issue, which will eventually pave the way for the development of a benchmark bond. The standardization issue is under consideration by MOFE, and the benchmark bond will probably be the three-year National Debt Management Bond.

Since Government bonds are issued at below-market interest rates, institutional investors participating in the underwriting syndicate usually do not resell the bonds in the secondary market. Instead, they prefer to hold on to them until maturity to avoid book losses, deterring the development of the secondary market.[8] To introduce a system of issuing Government bonds at market interest rates, several measures need to be implemented:

- The auction method should be altered; that is, instead of issuing bonds at par by adjusting coupon interest rates according to market conditions, Government bonds should be issued at a discount or at a premium with the coupon rate fixed in advance.
- Government bonds should be issued regularly according to a prearranged schedule, not according to the issuers' financing needs. This will enable Government bond underwriters to plan their activities in advance.
- The primary dealer system is a necessity and is to be introduced in 1999-2000. Foreign securities houses should be allowed to participate as primary dealers. Primary dealers must possess the expertise and sufficient capital to function as market makers. On 20 August 1998, MOFE announced that it would issue three-year bonds once a month and bonds with maturities of one year or less and longer than five years every two months, depending on the size of the issuance.

Corporate Bond Market

The vast majority of corporate bonds are issued in the form of guaranteed bonds. As of end-1997, guaranteed bonds made up 85.1 percent and nonguaranteed bonds 14.9 percent of the total. Recently, however, important changes have occurred in the corporate bond market. Since the financial crisis, the issuance of nonguaranteed corporate bonds has increased drastically (Table 2). In addition, interest rates have been differentiated in terms of the credit ratings of the various issuers in the secondary market.

Payments of principal and interest of guaranteed bonds are backed and assured by a third party, usually a financial institution, while those of mortgage bonds are secured by collateral of real estate or other facilities of the issuer. However, it is customary for the financial institution guaranteeing a corporate bond issue to demand collateral of real estate from the issuer. The majority of corporate bond issues, therefore, are backed by the issuer's real estate or other facilities. This practice has caused two major problems:

- Corporations have to secure enough real estate in order to raise the necessary funds in the bond market without worrying about having their creditworthiness evaluated by financial institutions. If asset value declines sharply, as it did recently, a bond issue backed by real estate may swiftly go bad.
- There is little need to rate various bond issues as they are alike, which is another reason why bond rating is underdeveloped.

Three credit-rating agencies annually publish bond ratings of all nonguaranteed corporate bonds. A credible bond-rating system, however, does not exist in the country. To strengthen the bond-rating system, it is recommended that competition be fostered by encouraging foreign credit-rating agencies to enter the Korean market.[9] The bankruptcy ratios of bonds rated by various rating agencies must also be fully disclosed periodically. However, strengthening the bond-rating system will take much more than bringing foreign agencies into the bond market.

Table 2: Composition of Corporate Bond Issuance (percent)

Period	Guaranteed Bonds	Nonguaranteed Bonds
Dec 1997–Feb 1998	92.9	7.1
Mar 1998	55.5	44.5
Apr 1998	55.2	44.8
May 1998	44.9	55.1

Source: Ministry of Finance and Economy.

Financial Institutions and Investors

Risk Management System of Financial Institutions

Major factors contributing to the current financial crisis are (i) the absence of a proper risk management system for capital market institutions and (ii) the lenient application of capital adequacy requirements by the regulator. Because most financial institutions in the country pursue high-risk, high-return strategies in a fast-growing market environment, they have not paid much attention to the proper management of business risks. Financial institutions emphasized growth more than profitability, and high risk inevitably accompanied the growth-oriented strategy. Each financial institution, however, has a standard operating procedure for internal risk management. Internal regulations and directives abound, and BOK has enforced accounting and operating standards with respect to investment in derivative products by financial institutions. Accordingly, domestic financial institutions are supposed to maintain an accounting function separate from a trading function, and to impose restrictions on individual open positions, monthly loss limits, and trading limit per transaction for each dealer.

Commercial banks, among others, are implementing a risk management program called asset liability management (ALM). ALM's main purpose is to estimate the change in the asset or liability values due to market risks, including interest rate movements, and to adjust the asset and liability positions in order to control overall risk. However, ALM techniques do not provide for the possibility of extreme losses, which may occur, although with a low probability. Value-at-risk (VAR) is the new risk management concept introduced to make up for the ALM's weakness.

Failing financial institutions should apply VAR on top of ALM. Troubled domestic financial institutions, including a couple of commercial banks and dozens of merchant banks, are suffering from depleted capi-

tal bases because they failed to control risk. These institutions may go bankrupt, although the probability is low. They apparently did not think it possible that major conglomerates such as Kia or Hanbo would go bankrupt or that the baht or won would tumble so fast and to such depths.

Another reason for the high-risk exposure of financial institutions is management's lack of knowledge about the financial products and their related risks. The huge losses incurred by several securities companies in an overseas derivative investment, which almost depleted their capital bases, clearly showed how ignorant management was. Not only was the potential VAR huge, but management did not know what the employees were doing. Management also lacked the incentive to hedge trading risks because regulators have always treated financial institutions' trading losses leniently. For example, financial institutions were required to reflect less than 50 percent of their losses from portfolio investment or credit extensions. Even if regulators were aware that financial institutions violated the rules, in order not to destabilize the financial system they did not order the institutions to employ corrective measures. The regulators' short-term perspective caused moral-hazard problems for financial institutions, which took advantage of regulatory protection and leniency and pursued high-risk, high-return strategies.

The restrictive regulations on sources of financial institutions' funds also impair the capability of financial institutions to hedge their risks. There is little freedom to adjust the maturity gap between the sources and uses of their funds. For example, securities firms heavily rely on extremely short-term sources of funds such as "call money" from other financial institutions. These accounts usually have maturities of less than two working days; they are still frequently used to purchase corporate bonds with maturities of more than three years on average. The maturity mismatch between sources and uses of funds has exposed securities firms to high liquidity and interest rate risks, mainly due to the regulation of the capital-raising sources of securities firms. Regulatory authorities did not allow securities firms to issue bonds or commercial paper, for example, and forced them to rely on short-term money markets or customer deposits.

Another problem with risk management in financial institutions, including commercial banks, is that external prudential regulations are mostly based on ex-post approaches so that authorities intervene in problematic institutions only after it is too late. This problem is mainly due to the lack of contingent action programs, such as the prompt corrective actions in the US, which require financial institutions that do not satisfy capital requirements to take diverse restructuring measures.

Capital Adequacy of Financial Institutions

FSC introduced NOCR as a capital adequacy requirement in April 1998. NOCR, which incorporates the recommendations of IOSCO, is defined as the net operating capital over total VAR. The net operating capital is defined as equity minus fixed assets, and the total VAR is defined as the potential expected loss from market risk, credit risk, and business risk exposure. The authorities interpret NOCR over 150 percent as a sound level of capital adequacy and below 100 percent as one requiring compulsory measures to strengthen the capital base. As of end-January 1998, the average NOCR of domestic securities firms was only 102.7 percent, mainly due to the low NOCRs of the large chaebol-owned securities firms (Table 3). (For more details, refer to Appendix Table A4.) Only 17 securities companies out of 32 satisfied the NOCR requirement.

To prevent securities companies from failing, the following actions can be taken:

- The regulator should apply the new capital adequacy requirements strictly without exception. Firms that do not satisfy the criteria should auto-

matically be subject to the proper measures. To prevent regulators from balking at applying the standard operating procedures, an independent audit function inside or outside the regulatory authorities can be set up to detect and penalize misconduct.

- An internal risk management organization for financial institutions should be established. It should specify the roles of investment-related departments and the back offices.
- Accounting and audit practices should be improved so that any off-balance-sheet transactions of material importance can be reported and evaluated. Penalties for violations should be more severe.
- Restrictions on the sources and uses of financial institutions' funds should be eased and replaced by capital adequacy requirements.

In the short run, policy measures to strengthen the capital bases of financial institutions should be seriously considered. Financial institutions need not only the resources to liquidate their bad loans, but also the funds to fulfill the minimum criteria for capital adequacy. To secure the resources necessary for restructuring is not easy. The Government plans to issue bonds amounting to several billion dollars both in domestic and foreign capital markets. It can use them to develop the domestic bond market, especially the Government bond market. The Government also allows foreigners to own and manage domestic financial institutions. But major M&A deals are not yet on the horizon as foreign investors still fear uncertainty in the financial market.

Capital market institutions also face the harder task of introducing advanced financial techniques and expertise, including an internal risk management system. Because of increasing competition, they have to find their niche to differentiate themselves from other companies, especially since the financial market is now wide open and the entry barrier, which was the last regulatory protection for the industry, is coming down fast under the Government's financial reform plan. As shown by the huge losses that some financial institutions have suffered from investing in derivative products in East Asian countries, competing in the international market requires more than management's strong will to internationalize or to enter new areas of investment.

The overall governance of capital market institutions should be reevaluated since their management malpractices are closely related with their governance structures. Most securities companies are owned by either commercial banks or industrial firms. They are failing partly due to too much Government intervention and partly due to their excessive risk taking. The problem is that commercial banks are unable to manage securities companies and that industrial firms tend to use their securities subsidiaries as a channel for corporate financing. In other words, the financial market desperately needs financial conglomerates that are independent of Government and industrial firms before it can proceed to the next stage of development. The establishment of the financial holding company under discussion by policymakers may be one measure to expedite the growth of financial groups.

Table 3: Nonperforming Loans and Net Operating Capital Ratios of Securities Firms, as of end-January 1998

Type of Ownership	Total Loans (W billion) (A)[a]	Nonperforming Loans (W billion) (B)[b]	Nonperforming Loan Ratio (%) (B/A)	Net Operating Capital Ratio (%)
Chaebol-owned	6,381	1,090	17.1	88.6
Non-chaebol-owned	4,107	655	15.9	120.3
Total Value/Average Ratio	**10,488**	**1,745**	**16.6**	**102.7**

[a] Total loans include guarantees on corporate bonds, claims on debts, receivables, and credits.
[b] Nonperforming loans include losses and doubtful and substandard loans minus recoverable parts of each loan.
Source: Financial Supervisory Commission.

Financial Problems of Investment Trust Companies and the Asset Management Industry

In recent years, especially after the financial crisis of 1997, the asset management industry has suffered from massive financial problems. Two institutions—ITCs and the commercial banks through their trust accounts—have dominated the asset management industry. The trust business of commercial banks is somewhat different from the ITCs'. Unlike ITCs, commercial banks maintain just one trust account, depending on the type of trust product. Customers thus have a limited choice of products. Because the trust accounts are open-ended, returns on trust savings vary due not only to changes in the value of invested assets, but also the addition of new assets to existing ones as more customers purchase the units. Bank trust accounts can also extend loans to corporations or individuals. To prevent head-to-head competition between ITCs and commercial banks, however, MOFE controls the maturities of commercial banks' trust products.

ITCs have not been immune to the economic downturn, particularly the shocks from the financial crisis.[10] Their dire financial situation dates back to the early 1990s. After KOSPI hit over 1,000 points in April 1989, it began to slide down by about 12 percent a month on average over the next couple of months. Worried that the downward trend would continue, the Government decided to intervene directly in the stock market by infusing W3 trillion through institutional investors, including ITCs. However, KOSPI dropped below 500 by end-1992, incurring huge capital losses for those involved in the stock market support program. ITCs have also suffered due to their large interest payments on loans. The original borrowing rate was 3 percent, well below the market rate of more than 14 percent. Later, however, the rate was increased to 8 percent, and then to market rates after the loans were rolled over. The capital losses and interest expenses incurred over the last seven years are estimated at over W8 trillion, contributing to the negative equity base of ITCs in 1997 (Table 4).

To supplement the lower-than-expected returns, ITCs sometimes meet customers' redemption demands by drawing on their own accounts, thereby bearing the losses and worsening their financial status. This practice is closely related to accounting rules used to evaluate a fund. ITCs had not adopted mark-to-market rules and, as a result, the value of the funds they manage was not subject to periodic evaluation. Thus, most ITCs' capital bases have been depleted, with total equity of negative W1,637.7 billion as of end-1997. Only too late, the Government started to enforce the mark-to-market valuation method in 1998. However, the full implementation of the mark-to-market rule has been deferred until the year 2000.

One of the main reasons for ITCs' poor performance is related to their governance and internal management system. Until June 1998, individual share ownership of ITCs has been limited to less than 10 percent of the total shares issued, with some exceptions. In case of the two largest ITCs, major shareholders are commercial banks, each owning less than 6 percent. Still, these commercial banks have not been able to exercise any control over the management of ITCs mainly due to the fact that MOFE directly controls ITCs' management. Former MOFE officials have frequently been appointed as top managers of ITCs. Their major concern is to achieve fast growth rather than increase profitability and competitiveness. Although ITCs are commercial entities (and are, in fact, among the most capitalistic of organizations), they are frequently exploited as a Government policy device, and no managers or shareholders have dared to refuse the roles imposed on them. The situation is no better for regional ITCs jointly owned by industrial firms. They are sometimes exploited as a source of funds for their major shareholders despite regulatory restrictions, and their financial position fluctuates along with the financial situation of corporate borrowers.

Table 4: **Financial Structure of Investment Trust Companies, as of end-1997 (W billion)**

Assets		Debt and Equity	
Cash and due from banks	2,659.2	Beneficial certificates	85,610.4
Securities	70,740.6	Securities investment savings	481.2
Stocks	5,820.9	Borrowings	5,505.3
Bonds	64,919.7	Others	12,596.4
Others	29,155.8	Total debt	104,193.3
		Total equity	(1,637.7)
Total assets	**102,555.6**	**Total debt and equity**	**102,555.6**

Source: Bank of Korea, 1998.

Despite the increasing losses and worsening financial situation of the investment trust industry, the Government cannot close down ailing ITCs as it would send unbearable shocks throughout the financial market. A major ITC has assets of over W25 trillion, and closing down just one would have economy-wide, catastrophic effects. Asset prices would drop, dragging down overall asset values of domestic financial institutions, including already-troubled commercial banks. The industry has long suffered due to the direct and indirect intervention of regulatory authorities, and poor governance and management structure. These problems will not disappear overnight.[11]

One thing the Government can do without spending a huge amount of capital is to deregulate the industry, especially in the areas of governance, management, and business scope. Despite the series of "promises" by MOFE to deregulate the industry, the Government still exercises too much influence over ITC management, and regulations governing the operation and development of funds are too restrictive. Its interventionist policy reflects the Government's old habit of regarding financial institutions as a policy tool. It recently announced a plan to deregulate restrictions on ITC ownership and to introduce company-type trust funds similar to US mutual funds. The establishment of mutual funds will definitely help to restructure and develop the asset management industry.

In order to diversify the types of trust funds, MOFE recently introduced the Securities Investment Law, which prescribes the establishment of US-style mutual funds. Under the law, anyone, Korean or foreigner, with a minimum capital of just W1 billion, can establish a securities investment company and sell its equities to the public. The company may list its stock on the stock exchange so that shareholders can cash out their investment through the sale of stock. Investment of the trust funds is limited to securities and call loans; loans to corporations and investment in real estate are prohibited. Borrowing and issuance of bonds in the call market are not allowed; provision of debt guarantee or mortgage is also prohibited. The maximum investment in each security is limited to 10 percent of total investment funds available, and to 10 percent of the total value of the subject securities outstanding. Investment in securities issued by related parties to the fund is also limited. A special type of mutual fund, the corporate restructuring fund, is allowed to bolster investment in corporations that need structural changes. It is not subject to the investment restriction applied to other mutual funds unless the object investment companies belong to the 30 largest chaebol. The duration of funds should be more than one year, and more than 50 percent of such funds need to be invested in small- and medium-size firms. Any capital gains on their investment are not subject to taxes.

The restriction of the fund type to a closed-end one reflects MOFE's concern over the possible shift of funds from ITCs to the newly established mutual funds. As the redemption of their investment is restricted, the share of mutual funds in the asset management industry is expected to be limited.

The Government should focus on the capital adequacy requirement that could replace most regu-

lations on ITC management. To be reborn as a true commercial entity, the asset management industry needs the free-market principle to work in the areas of entry, exit, competition, business scope, and the appointment of management. ITCs should also change their management practice. Many ITC customers still expect fixed returns from their trust contracts due to the ITCs' confusing advertising strategy. The practice originated from management's objective of fast growth in contract amounts, which eventually imposed costs on ITCs themselves in a bearish market.

Another issue in the investment trust industry is investor protection and system stability. Since most of the funds are subject to redemption before maturity, market downturns, or rumors of failing ITCs could ignite massive runs on funds for redemption. Faced with their customers' requests, ITCs would be forced to sell their stocks and bonds, expediting a free fall in asset prices in a vicious circle. Part of the reason for large-scale redemption is the current book-value-based accounting system in the valuation of a trust unit. In bearish markets, asset prices of a unit tend to be overvalued, inducing customers to redeem their investment money before the unit's value deteriorates. To protect customers and prevent large-scale redemption requests, the mark-to-market valuation system should be introduced.

Illegal transfer of funds or securities between bank and trust accounts has caused severe financial problems for commercial banks. Such transfers are executed to maintain the return profitability of each account. Since accounting is based on the book valuation of each account, it tends to delay the proper evaluation of a unit. As a result, not only holders of bank or trust accounts are likely to suffer, but also the financial stability of the entire banking system. Behind the banks' efforts to stabilize returns on trust accounts also lies customers' perception of trust products not as an invesment but as having fixed returns, an expectation supported by the implicit guarantee by banks of a minimum level of return.

Organizational Efficiency of the Korea Stock Exchange

The financial crisis and IMF's demands to adopt measures to enhance the financial market's efficiency forced KSE to restructure itself. KSE had been criticized for having too many employees for the number of securities listed and the volume of trading, compared to NYSE, for example. As trading has been fully computerized since 1997, KSE should reallocate its personnel to other areas such as market surveillance and self-regulation of its members. As of this writing, KSE has reduced its personnel by approximately 20 percent.

Redefining the Role of the Korea Securities Finance Corporation

As capital market deregulation proceeds, the Korea Securities Finance Corporation (KSFC) loses the reason for its existence. For its own survival and for the increased efficiency of the stock market, KSFC's functions and roles must be redefined. One major problem of KSFC is that its source of funds depends on the very capital market institutions it is supposed to help. Securities firms, for example, are required to deposit a certain portion of their customer deposits in KSFC at below-market rates, and get financing from KSFC at a higher rate than their deposit rates. In other words, KSFC works as an intermediary whose functional role is dubious, while it imposes extra intermediary costs on capital market institutions.

To expand the funding base of KSFC, the authorities allowed it to open branches and receive deposits from the general public. Depositors were given a preferential privilege to participate in IPOs, which were usually priced at a discount. Now, however, the stock market has long been stagnant and IPOs are priced at their market value. The merits of the securities deposit have thus disappeared and KSFC's funding base is rapidly shrinking. For example, in 1997 alone, customer deposits decreased by more than W1,225 billion, contributing to the sharp drop in KSFC's total assets.

Market Infrastructure of the Securities Market

Improvements in the Trading System of the Korea Stock Exchange

The opening and internationalization of the stock market raised the issue of conformity of its trading mechanism with that of other countries. In order to become compatible with the international transaction system, KSE has changed its overall trading mechanism, including the clearing and settlement system, and introduced new types of ordering systems and after-hour trading sessions. One major improvement is the introduction of the market order. Previously, only limit orders were allowed. The new system is not exactly the same as NYSE's; a KSE market order, for example, is an order to be executed at the best price available offered by the other side of the transaction.

UNFAIR TRADING IN THE SECURITIES MARKET

Despite the introduction of COSIS in 1995 and other related efforts of KSE, unfair trading activities, including insider trading, are still major concerns for KSE, regulatory bodies, and victimized investors. "Concerted trading," for example, is conducted by a group of investors who try to boost the stock price of a firm by spreading false information or by issuing massive buy orders. Of the hundreds of cases of concerted trading reported, only a couple have been officially investigated and reported to the judicial authorities for legal action. KSE and other regulatory bodies not only found it difficult to determine whether concerted trading was illegal or not, but they were also reluctant to report illegal trading because of the potential adverse effects on overall market sentiment. Unfair or illegal trading activities, however, tend to increase the volatility of related stock prices and, in the long run, weaken the investor base as disappointed, innocent investors eventually leave the market. Unfair trading activities must be curtailed at all cost.

UNDERDEVELOPED OVER-THE-COUNTER MARKET

Even though the number of firms listed on KOSDAQ (KSDA's OTC market) has increased to over 300, daily trading volume is still small; total annual trading volume barely amounts to that of several days' trading on KSE. One reason for the illiquidity of the OTC market is that the major shareholders (so-called "owners") of newly listed companies are unwilling to fully open them to outside investors for fear of a threat to their control. Another reason for the weakness of the OTC market is that the financial market is still bank-oriented even though direct financing of corporations has steadily increased over the last two decades. Direct financing has slowed since the early 1990s mainly due to the bearish stock market, which has also affected the OTC market. As a result, emerging firms find it hard to gain access to capital markets, which hinders the establishment of new venture firms.

Enforcement of Central Deposit and Dematerialization

Central deposit and dematerialization of securities would simplify the overall securities transaction process and make it more transparent and efficient. However, individual investors' demands for securities for their personal bearing, and related laws that require the issuance of physical certificates, hinder dematerialization. As of end-1997, the proportions of listed stocks and bonds deposited with KSD are 72.7 and 75.4 percent of the total issues of stocks (shares) and bonds (values), respectively. These are low compared with the central deposit ratios of other advanced countries, which range from 85 to over 95 percent. KSD deposits are low because investors are extremely sensitive about exposing their identity and financial asset holdings to the public and the Internal Revenue Service. Another reason for the low deposit ratio is the narrow definition of "securities" in the Securities Exchange Law. Accordingly, short-term financial products such as CDs are deposited with KSD on an individual contract basis between inves-

tors and KSD, based on MOFE authorization of such business as a complementary business of KSD.

A higher central deposit ratio is an important precondition for the introduction of full-scale dematerialization of the securities-issuing system. Issuing securities in the form of paper not only incurs huge costs for issuing, depositing, and transferring, but also increases the possibility of loss or theft. KSD is considering measures in cooperation with MOFE to enforce central deposit and dematerialization. The imperatives are, among others, (i) the expanded definition of securities, including the concept of proxy securities that will replace existing securities; (ii) the stronger legal status of KSD as the central depository; and (iii) the introduction of a full-scale real-name system.

Streamlining the Settlement Organization

In the securities market there exist multiple settlement organizations for various types of transactions. The official settlement organization for KSE securities transactions, including stock index futures and options, is KSE itself, while KSD is the official settlement entity for KOSDAQ transactions. Multiple settlement bodies incur extra costs for the participants, including separate deposits of settlement guaranty money, and increase settlement risks. As in other countries, where the general trend is toward the integration of settlement organizations, in Korea adjustment of the roles of settlement organizations is in order. To reduce the settlement risk, KSD is considering a change in the settlement system, including the introduction of real-time gross settlement (RTGS) or a combination of RTGS and the net settlement system.

Depository Fee System

The current fee system for the depository and other related services provided by KSD can be characterized as nondiscretionary. Fees are paid mainly according to the amount of securities deposited without differentiating among specific types of services provided, amount of services needed, number of service time blocks in a day, etc. The system causes overconsumption of certain services and unfair sharing of depository and settlement costs among the service users. As of this writing, KSD was considering the introduction of a new fee system based on a marginal-cost concept, which would incorporate the policy objective of dematerialization of securities issues by imposing higher costs on the deposits of physical securities while subsidizing the deposit demands in electronic register form.

Ownership Structure of Securities Companies

Securities companies can be divided into three groups depending on their ownership structures: (i) subsidiaries of the chaebol that are closely controlled by related companies, (ii) entrepreneurs usually specializing in financial businesses, and (iii) subsidiaries of financial institutions.

Group (i) accounts for about half of the securities companies; groups (ii) and (iii) make up the rest. However, they do not differ much in business strategy and performance. The chaebol's securities companies are at an advantage, especially in the underwriting business. For example, despite the 5 percent restriction on the proportion of underwriting of securities issued by their related companies, firms in the first group boast of above-average performance in the underwriting business due to the implicit collusion among chaebol-owned securities companies: they barter underwriting among themselves to circumvent restrictions. However, their overall performance is below average. The average return on equity was only 1.36 percent for those belonging to the 30 chaebol and 2.74 percent for the others from 1991 to 1996.

The below-average performance of the chaebol's securities companies has three important implications on the relationship between financial institutions and real sector firms. First, the chaebol's managerial expertise has not necessarily worked in the case of financial institutions. This is partly due to the chaebol's

risk-seeking management orientation, which clashes with the conservative culture required of financial institutions. Many chaebol-owned securities firms are in trouble today due to their aggressive investment strategy in the area of portfolio investment.

Second, financial institutions owned by industrial firms have been perennially exploited by their parents as private sources of funds. Many cases of cross-subsidy from securities companies to their related companies are in the form of favored financing, support of stock prices, and favored guarantees on loans or corporate bond issues.

Third, and most important, due to their governance structure, NBFIs owned by industrial firms have not satisfactorily allocated financial resources or monitored the management of real sector firms. Korea is one of the few countries that allow industrial firms to own and control major NBFIs, including securities companies, merchant banks, and insurance companies. The disappointing performance of chaebol-owned NBFIs suggests that measures are needed to protect them from their parent companies, such as installing firewalls and Chinese walls that will prevent the two entities from exchanging manpower, funds, information, and other managerial resources.

Restructuring the Securities Industry

In addition to regulatory restrictions and the depressed stock market, the stagnant securities industry suffers from too much competition. Its Herfindhal Index, which shows an industry's competitiveness, has been about 0.07, which means that too many securities companies are competing to meet too little demand. Many academic researches suggest that there exist economies of scale in the Korean securities industry, implying the possibility of increased efficiency for larger securities companies.

Securities firms have every reason to pursue fundamental structural changes in their management strategy, organization, manpower, and branch operations. In the process, the roles of their parent companies will be critical. The chaebol are in the securities business partly to facilitate their own financing activities despite the industry's low returns. Commercial banks have established securities subsidiaries to expand their own business scope and to utilize the economies of scope and scale. These parent companies are now seriously evaluating the pros and cons of maintaining securities subsidiaries, and one urgent issue is whether or not to inject additional capital into failing securities subsidiaries. The restructuring in the securities industry will depend on the financial soundness of the parent companies and the position of securities subsidiaries in their overall business portfolios. To expedite restructuring, the regulator should apply the new capital adequacy requirement strictly in order to weed out inefficient securities companies.

Summary and Policy Recommendations

Securities Regulatory System

The Financial Reform Law introduced a consolidated supervisory system, placing the securities market supervision function under the jurisdiction of FSC. Most of MOFE's supervisory functions have been transferred to FSC. However, MOFE, once the highest authority in the financial market, has been desperately trying to maintain some of its regulatory power. For example, besides the authority to draft laws and rules, it has the power to grant business licenses to financial institutions and to request financial institutions to submit necessary and supporting documents, causing conflict and overlapping with FSC regulations.

To avoid overregulation and overlapping of regulations and to make supervision more efficient, FSC should perform the regulatory function and MOFE remain as the policymaking body. Although MOFE should maintain its authority to draft laws and regulations in certain areas, its legislative power should be kept to a minimum; the National Assembly can better serve as the legislative authority.

The opening and internationalization of the securities market have raised a new issue: the trading

mechanism and regulatory system must conform with international standards. As globalization proceeds, existing regulations and restrictions on securities trading will have to be eased. To enhance the market's operational efficiency and to maintain the fairness and competitiveness of trading in such a globalized market, advanced techniques to detect unfair trading and fraudulent activities should be developed. More comprehensive surveillance systems in the securities market are required. Although COSIS, currently employed by KSE, is modeled after the most advanced market surveillance systems of NYSE and AMEX, it still lacks some of the most advanced features of these world-class surveillance systems. Even greater emphasis should be put on developing better audit trails and policing trader activities to enable the securities market to survive in the globalized market.

The narrow definition of "securities" has been a major obstacle to the development of new financial products. Derivative securities such as stock index futures and options were added to the list of securities following the 12th amendment of the Securities and Exchange Law. Although the Futures Trading Act of 1995 also covers futures trading, it does not cover derivative securities based on stock indexes (i.e., stock index futures), which may cause conflict and confusion in the derivatives market and should be addressed soon in view of the establishment of a new futures exchange in 1999. For the securities market to better cope with changing market conditions and allow financial innovations to take place, the concept of "securities" should be inclusive, as it is in the US,[12] rather than specifically "listed" in the law.

Equity Market

INITIAL PUBLIC OFFERING PROCEDURE

The process of going public and listing has been led by FSS since 1999. FSS decides whether or not a firm is qualified to go public and list on KSE and KOSDAQ, and the rest of the IPO proceeds virtually automatically. As a result, the stock exchange, securities dealers' associations, securities companies, and the firms to be listed do not perform their roles independently or responsibly. The procedure also limits the securities companies' business percipience in underwriting, impeding the healthy growth and maturity of a self-regulatory capital market. It must be changed if a self-sustaining and autonomous capital market is to develop. The power to decide whether or not a security should be listed must remain with KSE. FSS's responsibility should be limited to deciding whether or not an institution involved in an IPO is violating the law.

LISTING AND DELISTING ON THE KOREA STOCK EXCHANGE

When a listed company gets into serious trouble and meets one of the delisting criteria, it is designated as an administrated company in order to allow it to recover and to protect stockholders by providing liquidity. However, statistics show that not many administrated companies get back on their feet. Allowing them a grace period causes the following serious problems:

- It takes an average of six to seven years to delist a company, putting unnecessary strain on the market. A grace period also limits opportunities for healthy firms to list their shares and obtain funds from the stock market.
- Leaving administrated shares on the market for an unnecessarily long period creates moral-hazard problems and unjustified speculation, damaging the general atmosphere of the market.

The grace period should therefore be shortened or totally abolished.

IMPROVING CORPORATE GOVERNANCE AND MANAGEMENT TRANSPARENCY

The closed ownership structure of companies, especially the chaebol, has been cited as a major cause of recent economic hardship as it sacrifices eco-

nomic efficiency. In order to attract investors to the new issues, the market corporate governance structure must be opened and management transparency increased. KSE now requires that one fourth of the directors of listed companies' boards be independent outsiders. In order for the outside directors to function as an independent checking force, the minority shareholders must be represented on the board through a cumulative voting system. They should also have the right to file a lawsuit by virtue of ownership of a single share, and not of 0.01 percent of outstanding shares as required now, in order to help them voice issues against the management and the controlling shareholders.

Another significant influence on corporate governance structure may come from institutional investors (specifically ITCs) and foreign investors. ITCs are allowed to exercise the voting rights on the shares in their trust account. With their huge holdings of domestic stocks, they will emerge as an influential group in corporate governance. However, since the majority of ITCs are under the influence of either the Government or chaebol, it is necessary to introduce some restrictions on their exercise of voting rights in order to guarantee their independence and neutrality. For example, their voting rights may be limited to cases where minority shareholders' interests are seriously threatened or the management is found to have acted against the shareholders' interests. Foreign investors, with their complete freedom in the stock market, can exert a strong influence on corporate decisions as well. However, domestic investors, who are now discriminated against, especially in the area of hostile take-overs, should be given the same treatment as foreigners if the market is to function efficiently.

Bond Market

GOVERNMENT BOND MARKET

Due to inflexible issuing methods, there are too many kinds of Government bonds, limiting liquidity in the secondary market. The various issues must be consolidated into a smaller number of categories. The issuing terms of Government bonds (coupon rate and maturity) must be standardized so that fungible issues can easily be added to existing bonds. Standardization of issuing terms will eventually lead to the development of a benchmark bond by making it possible to increase the issuing amount for a single Government bond. The three-year National Debt Management Bond will best serve as the benchmark bond.

Government bonds can be issued at the market rate if the auction method is altered to allow these bonds to be issued at a discount or premium with the coupon rate fixed in advance. Timing of a bond issue should also be done according to a schedule, not according to the issuers' irregular financing needs, enabling Government bond underwriters to plan their activities. Recently, the Government announced that it would issue three-year bonds once a month, and bonds with maturities of one year or less and longer than five years once every two months, depending on the size of the issuance. This is a change in the right direction. Finally, a primary dealer system, which should include foreign securities houses, should be introduced in 1999-2000 as market conditions have recently become favorable (e.g., market interest rates are at their lowest in many years).

CORPORATE BOND MARKET

Since a corporate bond issue is usually backed by real estate or physical facilities, the issuers' creditworthiness is not fully reflected in the yield structure of corporate bonds. Another, perhaps more important, reason why issuers' creditworthiness has not been properly differentiated is the lack of a reliable bond rating mechanism. To improve the bond rating system, it is recommended that more competition be brought into the market by disclosing the bankruptcy ratios of bonds periodically rated by various rating agencies and by encouraging foreign credit-rating agencies to participate in the bond market.

Financial Institutions and Investors

CAPITAL ADEQUACY OF FINANCIAL INSTITUTIONS

To prevent securities companies from failing again, the following preventive measures should be taken:

- NOCR should be applied to all securities companies without exception. A firm found to be violating the rule should be penalized promptly. An independent auditor may be employed to oversee rule enforcement.
- Financial institutions should be encouraged to establish an internal risk management organization whose role is clearly defined.
- Accounting and audit practices should be improved so that any off-balance-sheet transactions of material importance are reported and evaluated. Severe penalty should be imposed on any violation.
- Restrictions on the sources and uses of funds of financial institutions should be eased and replaced by capital adequacy requirements.

Many financial institutions are still under the influence of Government or industrial conglomerates. To assure their independence, they may establish a financial holding company, which, however, should have its own limitations and safety devices, such as a proper risk management system and firewalls between different financial institutions.

FINANCIAL PROBLEMS OF ITCS AND THE ASSET MANAGEMENT INDUSTRY

The asset management industry, especially ITCs, has been hard hit by the recent financial crisis and economic downturn. Since ITCs have been supplementing the lower-than-expected returns on their trust accounts by drawing on their own accounts, much of their capital base has been depleted, resulting in an aggregate equity of negative W1,637.7 billion. Worse, they have borrowed heavily from other financial institutions using their customers' trust accounts as collateral. It is difficult to estimate the aggregate potential losses on trust accounts. The poor performance of ITCs has been blamed on two factors: (i) book-value accounting rules applied to the evaluation of funds, and (ii) Government control over the governance and internal management system of ITCs. This financial mess has to be cleared up. One possible solution is to wait until the capital market recovers so that the asset values of ITCs increase. Although this wait-and-see policy is not wise, the Government has little choice as the effect of closing down a major ITC would be economy-wide and catastrophic.

Deregulation of the ITC industry, especially in the areas of governance, management, and business scope, coupled with the abandonment of the old concept of treating financial institutions as policy devices, will help ITCs immensely to overcome their difficulties. The recent announcement by the Government that it would ease restrictions on ITC ownership and introduce a US-style mutual fund is thus welcome. The establishment of mutual funds will definitely contribute to the restructuring and development of the asset management industry. However, the operation of the mutual funds is too restrictive to have any major impact on the industry's current problems. For example, restricting funds to the closed-end type, thus constraining the redemption of investment funds, is designed to minimize a possible adverse effect on ailing ITCs, such as the possible shift of funds from ITCs to the newly established mutual funds. This kind of policy casts doubt on the Government's will to change the asset management industry. It is recommended that the asset management industry be restructured as a purely commercial entity with minimal regulations and restrictions.

Government policy should focus on replacing most regulations governing ITC management with capital adequacy requirements. To be reborn as a true commercial entity, the asset management industry must be guided by free-market principles in the areas of entry, exit, competition, business scope, and the appointment of management. ITC management prac-

tices also need major changes. Many ITC customers still expect fixed returns from their trust contracts due to the ITCs' confusing advertisement strategy, whose objective was fast growth and which eventually imposed costs on ITCs themselves in a bearish market.

Investor protection and system stability are also important issues for ITCs. Due to the adoption of book-value-based accounting in valuation of a trust unit, asset prices tend to be overvalued in a bearish market, inducing customers to redeem their investment funds, which forces ITCs to sell their stocks in a sluggish market, expediting price decline. To protect innocent customers and to prevent large-scale redemption demands, the current book-value-based accounting system must soon be replaced by a mark-to-market valuation.

Market Infrastructure of the Securities Market

ENFORCEMENT OF CENTRAL DEPOSIT AND DEMATERIALIZATION

In the securities market, the issuance of physical certificates not only incurs high costs of issuing, depositing, and transferring, but also increases the possibility of loss or theft. Recent trends show that paperless security issuance is becoming more common in advanced capital markets. A high central deposit ratio is a precondition for the introduction of full-scale dematerialization of the securities issuing system. Currently, KSD functions as the central depository, but its deposit ratio has not been satisfactory. Some regulations that require the issuance of physical certificates, and the narrow definition of "securities," among others, have hindered the dematerialization of the securities issuance system. Stronger measures—(i) a wider definition of securities, including the concept of proxy securities; (ii) the promotion of KSD's legal status as the central depository; and (iii) the reinstatement of the real-name system—should be taken to enforce central deposit and dematerialization of securities issuance.

STREAMLINING THE SETTLEMENT ORGANIZATION

Multiple settlement organizations exist in the securities market. Considering that the general trend in advanced capital markets is the integration of settlement organizations, the role of related settlement organizations in Korea must be redefined and adjusted. It is also strongly recommended that the settlement system be overhauled by, for example, including RTGS or a combination of RTGS and the net settlement system.

DEPOSITORY FEE SYSTEM

The current nondiscretionary depository fee system causes overconsumption of certain services and unfair sharing of depository and settlement costs. To avoid these problems, a new fee system based on the concept of marginal cost should be introduced. It should also incorporate the policy objective of dematerialization of securities issues by imposing higher costs on the deposits of physical securities while providing subsidies to the deposits in electronic register form.

OWNERSHIP STRUCTURE OF SECURITIES COMPANIES

Industrial companies are permitted to own and control major NBFIs, including securities companies, merchant banks, and insurance companies. Their aggressive management policies, however, clash with the conservative nature of financial institutions. As a result, many NBFIs owned by industrial companies have failed. The disappointing performance of chaebol-owned NBFIs suggests that they should be protected from their parent companies by measures, such as installing firewalls and Chinese walls, that will prevent the two entities from exchanging manpower, funds, information, and other managerial resources.

RESTRUCTURING THE SECURITIES INDUSTRY

As too many securities companies compete in a too-small market, they are encouraged to pursue fundamental structural changes in their management strat-

egies. Since many were established for reasons other than profit, the roles of their parent companies will be critical in deciding their fate. It is recommended that the new capital adequacy requirement be strictly imposed in order to weed out inefficient securities companies.

Notes

[1]NBFIs are of 18 types. They may be classified into five categories according to their activities: development, savings, investment, insurance, and others. NBFIs include investment trust companies, merchant banking corporations, securities companies, leasing companies, life insurance companies, mutual savings and finance companies, credit unions, etc. All, except securities companies and insurance companies, were once under the direct supervision of MOFE, which has surrendered its supervisory authority to FSC.

[2]The term "securities" in the Securities and Exchange Law, which was wholly amended by Law No. 2920, 22 December 1976, and most recently amended by Law No. 4701, 5 January 1994, means any of the following:

(i) Government bonds;
(ii) municipal bonds;
(iii) bonds issued by a corporation organized under a special law;
(iv) corporate bonds;
(v) certificates of contribution issued by a corporation organized under a special law;
(vi) stock certificates or instruments that represent preemptive rights;
(vii) stock certificates or instruments issued by a foreign government or corporation, which have similar characteristics as items (i) to (vi);
(viii) depository receipts based on stock certificates or instruments issued by a foreign government or corporation and approved by the President; and
(ix) other certificates or instruments designated by presidential decree that are similar to or related to those referred to in items (i) to (viii).

Mortgage-backed securities and asset-backed securities can be considered as securities according to either or both items (i) and (ix).

[3]Inside shareholdings include those undertaken by the owner, the owner's family, member firms, nonprofit organizations, and the Employee Stock Ownership Plan. A comprehensive study by UngKi Lim shows further details of the ownership structure of the chaebol. See Lim (1998).

[4]In shadow voting, institutional investors simply cast their votes according to the exact proportions reached in the shareholders' general meeting. Thus, it has no influence on the decision made at the general meeting.

[5]The "50 percent plus one share" rule states that when a company, or an individual, or group of individuals acquires more than 25 percent of the outstanding shares of a company, 50 percent plus one share must be purchased through a tender offer. This is to discourage hostile takeovers. As the rule has been abolished, more active foreign mergers and acquisitions of Korean companies are expected.

[6]While MOFE is the issuing authority of Government bonds, the Budget Office has long been resistant to large bond issues as it is averse to deficit budgeting. Its reluctance is an important factor hampering the development of the Government bond market.

[7]Treasury Bills have a maturity of one year and are issued by MOFE to finance budget deficits. Monetary Stabilization Bonds have a variety of nine different maturity structures of 14, 28, 63, 91, 140, 182, 364, 371, and 546 days. They are issued by the Bank of Korea to control the money supply. Trading of the bonds is inversely related to the number of days that have passed since their issuance.

[8]Current accounting standards and regulations are somewhat vague on the valuation of marketable and investment securities. Article 65 (Valuation of Marketable Securities), Clause 2 states: "Among marketable securities, bonds shall be recorded at purchase cost plus incidental expenses, determined by the specific identification, weighted average or moving average method. If the market value differs from the acquisition cost, bonds *can be* recorded at market value." Article 67 (Valuation of Investment Securities), Clause 5 states: "…government bonds, public bonds, corporate bonds, etc., which are held for long-term investment purposes and acquired at costs different from their par value, shall be stated in the balance sheet at cost less amortization…of the difference between the cost and par value over the remaining term of the bonds." Thus, current accounting rules do not require financial institutions to access the bonds at market value although recent securities regulations introduced the market-value evaluation of investment securities. The rules will change in the year 2000.

[9]Moody's Investor Service, a world-renowned rating agency, signed a contract to set up a joint venture with the Korea Investor Service.

[10]For a discussion of ITCs' organization and functions, refer to the Appendix.

[11]One possible solution to the ITC problem is to wait until the capital market recovers and ITC asset values increase.

Since the top priority of financial reform is the banking sector, ITCs will be dealt with later on. The main reasons for this stepwise approach are that (i) restructuring might cause economic shockwaves and (ii) the Government and private sector can mobilize only so much restructuring funds.

[12]Refer to the US Securities and Exchange Act of 1934, Section 3. The term “security” means any note, stock, treasury stock, bond, debenture, certificate of interest or participation in any profit-sharing agreement or in any oil, gas, or other mineral royalty or lease, any collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or in general, any instrument commonly known as a “security”; or any certificate of interest or participation in, temporary or interim certificate for, receipt for, or warrant or right to subscribe to or purchase, any of the foregoing; but shall not include currency or any note, draft, bill of exchange, or banker’s acceptance which has a maturity at the time of issuance of not exceeding nine months, exclusive of days of grace, or any renewal thereof the maturity of which is likewise limited.

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Appendix

Capital Market Institutions in Korea: Organization and Functions

KOREA STOCK EXCHANGE

Established in February 1956, the Korea Stock Exchange (KSE) has played a central economic role as the country's sole exchange.[1] It is a nonprofit organization, with 38 regular members and 5 special members as of April 1998. The regular members are 31 domestic securities firms, 3 joint ventures between domestic and foreign investors, and 4 foreign securities firms, which were allowed membership since 1991. Regular members have the right to trade securities on the exchange, make claims on KSE properties, and vote at general meetings. They are eligible for membership on the Board of Directors. Special members' only right is to trade on the exchange. KSE has two affiliates—the Korea Securities Depository (KSD) and the Korea Securities Computer Corporation (KOSCOM). It reports to and cooperates with the Ministry of Finance and Economy (MOFE) and Securities and Futures Commission (SFC).

KSE's major function is to provide a market for trading of securities, including stocks, bonds, and Korea Composite Stock Price Index 200 (KOSPI) futures.[2] As an official intermediary and provider of the capital market, KSE regulates and supervises member firms, evaluates applications for listing in the primary market, and monitors securities trading to maintain a fair and orderly secondary market.

The entire process of securities trading, from ordering to settlement, was computerized by 1996, and the trading pits and out-cry system have disappeared. As of January 1998, 776 firms were listed on KSE and 952 listed securities were traded with a total market capitalization of W106.2 trillion.

KOREA SECURITIES DEALERS ASSOCIATION

Established in 1953, the Korea Securities Dealers Association (KSDA) is a self-regulatory organization (SRO). Its regular members are securities firms; its associate members are securities-related financial institutions, including banks and investment trust companies. It is financed by membership fees and funds earmarked from the securities trading fees.[3] KSDA has seven departments, four offices, and four branches.

KSDA promotes the welfare of member firms, coordinates conflicting interests among its members, and assists KSE in keeping the capital market efficient and orderly through self-regulation. It tries to maximize the welfare of its members by moving ahead of the official regulatory authorities in terms of setting the rules for its members' activities, and represents their interests vis-à-vis the senior regulatory bodies. In particular, KSDA enforces the Fair Practices Rules on member firms' investment solicitation and transaction intermediation, and operates the Investor Protection Center to mediate any problems between investors and member firms.

Above all, it regulates the over-the-counter (OTC) markets, including listing, delisting, listing suspension, and disclosure of KSDA-listed firms. In May 1997, KSDA established an independent company, the Korea Securities Dealers Association Automated Quotation (KOSDAQ), to promote the trading of stocks and bonds of small and newly established firms.

KSDA also provides training programs for its member firms in the areas of securities investment and trading. It maintains a research agency, the Ko-

[1] KSE was formerly a Government-owned organization. It was privatized in 1988.

[2] After a long debate as to where the stock index futures should be traded, KSE was chosen over the alternative of establishing a separate futures exchange, and KOSPI futures began trading on KSE in May 1996. The main argument for utilizing the existing exchange, other than the consistency of trade between the spot and the futures, was its economic feasibility, since no other futures product was expected to be introduced in the near future.

[3] As of March 1998, 0.003 percent of the total stock trading value and 0.015 percent of its members' underwriting commissions were earmarked for KSDA. Foreign securities companies can join KSDA either as regular or special members.

rea Securities Research Institute (KSRI), which recently became independent of KSDA.[4]

KOREA SECURITIES DEPOSITORY

The Capital Market Development Act of 1968 and the Public Corporation Inducement Act of 1972 encouraged a large wave of new firms to go public. The number of stocks and bonds traded in the capital market surged, and regulatory authorities became aware of the importance of having an efficient settlement and depository system. In 1974, the Korea Securities Settlement Corporation (KSSC) was established as a commercial entity to improve the accuracy and speed of the settlement system in securities transactions.

In 1994, KSSC was restructured as the Korea Securities Depository (KSD), a nonprofit public organization, to enhance its status as the sole central depository. KSD's major functions include book-entry transfer and delivery, safe depositing, agent services for receipt and payment of dividends on stocks and interest on bonds, and other clearing- and settlement-related services for both KSE and KOSDAQ. It acts as a transfer agent for the securities owners of listed firms.

KSD is also the settlement entity for KSE and KOSDAQ transactions. KSE is in charge of the clearing process while KSD takes care of settlement on a contractual basis. KSD, however, administers the whole process from clearing to settlement for KOSDAQ transactions and securities transactions among institutional investors.[5]

In 1995, KSD improved its settlement functions by joining the Bank of Korea Wire (BOK-Wire), the national payment system, making real-time payment possible. (Payment used to be done on a next-day basis.)

In 1996, KSD's status was again improved greatly as the revised Securities Exchange Law explicitly designated and expanded the types of securities to be deposited with KSD.[6] The law also widened the applicable scope of the New Issue Blanket Deposit (NIBD) system to include all new issues of securities.[7]

The major KSD shareholders are KSE, KOSCOM, KSDA, and securities firms. KSD has 15 departments, 2 offices, and 5 branches.

KOREA SECURITIES FINANCE CORPORATION

The Korea Securities Finance Corporation (KSFC), established in 1955, is the only organization in the country that facilitates financing in securities transactions in the primary and secondary capital markets. Its financing ranges from margin loans and stock loans for individual and institutional investors to securities underwriting loans, working capital loans, securities collateral loans, and stock purchase loans for capital market institutions, including securities firms. It also acts as a custodian of securities in limited areas, accepts deposits from investors who plan to subscribe to initial public offerings by newly listed firms, and trades in bonds under repurchase agreements (RPs) and reverse RPs. KSFC operates 15 departments and 6 branch offices with a total staff of 318, including executive managers. Its total assets amounted to W6,426.3 billion as of end-1997 (Table A1).

INVESTMENT TRUST COMPANIES

The first investment trust company (ITC) was established in 1974. Thereafter, for more than a decade, three ITCs with nationwide branch networks

[4]KSRI is one of the main research institutes closely involved in MOFE's policymaking procedures in the area of capital markets.

[5]In 1990, the Institutional Affirmation and Settlement (IAS) system was established to facilitate delivery, payment, and settlement of securities transactions among institutional investors. It introduced the KSD as the sole entity to coordinate the entire settlement procedure between executing securities companies and their institutional investors via KSD's account management system and SAFE (Speedy, Accurate, Faithful and Efficient Terminal), KSD-net.

[6]KSD internal regulations used to be applied in defining the eligibility and scope of securities to be deposited.

[7]The NIBD system enables issuers, at the request of investors, to register securities in KSD's name without issuing physical certificates, helping to reduce issuing costs by 95 percent and streamlining securities transaction processes. The beneficial owners of securities exercise their rights with the entry of the number of securities in the participant or client book.

Table A1: **Financial Structure of Korea Securities Financing Corporation, as of end-1997 (W billion)**

Assets		Debt and Equity	
Cash and due from banks	63.6	Deposits	555.9
Securities	31.2	Bills issued	4,413.1
Loans	6,006.5	Borrowings	1,100.5
Fixed assets	8.5	Others	103.4
Others	316.5	Total debt	6,172.9
Total assets	**6,426.3**	Total equity	253.3
		Total debt and equity	**6,426.3**

Source: Bank of Korea, 1998.

operated in the market. In 1990, five more companies were given ITC licenses, but their businesses were restricted to certain regions of the country.[8] The total assets of ITCs by end-1997 amounted to W102.6 trillion. The share of the ITC industry in the financial market's total assets increased from 5.6 percent in 1987 to 7 percent in 1997.

Securities investment trusts are similar to the UK's contractual-type unit trusts. ITCs, as fund management companies, sell their products in the form of beneficiary certificates directly to customers through their branches. The certificates are mostly closed-end with fixed maturity, although open-end trust funds are also available. An investment trust contract is concluded between an ITC and a trustee company that acts as a custodian and bookkeeper and must be a bank authorized for trust business. The beneficiaries are the recipients of profits from the trust, distributed in cash. ITCs also provide trust-type securities savings that are almost identical to demand deposit savings of banks since there is no restriction on withdrawal.

The trust funds that an ITC can set up are of two types: stock funds and bond funds. Stock funds are heavily weighted with stocks, but have an upper limit on the proportion of stock investments. Bond funds are heavily weighted with bonds and are prohibited from investing in stocks. However, additional issues and redemptions are allowed for bond funds. In the 1990s, almost 80 percent of the funds have been bond funds as stock price movements and the performance of stock funds have disappointed investors.

ITCs must invest trusted funds primarily in listed securities. They are prohibited from using the funds to make loans, except call loans.[9] Regardless of type, some funds are invested in call loans and time deposits to meet investors' redemption requests. For risk diversification, MOFE prohibits ITCs from investing more than 10 percent of a trust fund in one stock, acquiring more than 20 percent of a firm's stocks, or acquiring securities held by its subsidiaries or affiliates. In 1996, MOFE abolished the entry barrier into the ITC industry by allowing other financial institutions, including securities companies, to establish investment trust management companies (ITMCs). ITMCs specialize in the management of trust funds and do not sell funds. Recently, they were allowed to manage stock funds as well as bond funds.

SECURITIES COMPANIES

As of March 1998, 34 securities firms had registered with MOFE, including three joint ventures between domestic and foreign securities firms. The three major business lines of securities companies are brokerage, dealing, and underwriting. MOFE applies different minimum capital requirements depending on the securities company's scope of business. There is not

[8] Later on, six merchant banks were also permitted to manage trust funds that may only invest in bonds.

[9] To protect investors, ITCs are prohibited from using trusted funds as call loans to their own accounts. However, they easily circumvent the regulation by using other financial institutions as a bridge.

Table A2: Assets of Financial Institutions

Financial Institutions	Assets (W billion) 1987	1991	1993	1995	1997	Percent of Total 1987	1991	1993	1995	1997
Money banks	110,482.6	220,388.9	275,689.9	379,517.1	573,695.5	56.0	45.6	38.8	38.0	39.4
Development institutions	20,277.6	43,162.7	51,853.6	70,544.2	149,078.9	10.3	8.9	7.3	7.1	10.3
Merchant banks	2,865.8	6,952.3	33,114.1	45,908.0	77,647.9	1.5	1.4	4.7	4.6	5.3
Investment trust companies	11,048.0	34,128.5	59,091.1	75,972.0	102,555.6	5.6	7.0	8.3	7.6	7.0
Korea Securities Finance Corp.	555.4	3,984.4	5,167.5	8,344.5	6,426.3	0.3	0.8	0.7	0.8	0.4
Savings institutions[a]	37,889.7	121,660.3	213,651.5	327,579.5	428,096.6	19.2	25.1	30.1	32.7	29.4
Life insurance companies	11,647.1	36,656.2	48,790.9	66,972.1	92,534.0	5.9	7.6	6.9	6.7	6.3
Securities companies	2,399.4	16,866.5	22,376.9	25,048.1	27,380.0	1.2	3.5	3.2	2.5	1.9
Total assets	**197,165.6**	**483,799.8**	**709,735.5**	**999,885.5**	**1,457,414.8**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

[a] Savings institutions include mutual credits, mutual savings and finance companies, credit unions, credit cooperatives, trust accounts of banks, postal savings, and postal life insurance.
Source: Bank of Korea, 1994–1998.

Table A3: Revenue Sources of Securities Firms

Year	Amount (W billion) Brokerage Commission	Underwriting Fee	Financial Revenue	Gains on Securities Trading	Total	Percent of Total Brokerage Commission	Underwriting Fee	Financial Revenue	Gains on Securities Trading	Total
1989	675.4	148.4	447.2	597.5	1,868.5	36.2	7.9	23.9	32.0	100.0
1991	379.1	599.7	775.7	191.6	1,946.1	19.5	30.8	39.9	9.8	100.0
1993	941.8	310.6	1,020.7	562.7	2,835.8	33.1	11.0	36.0	19.9	100.0
1995	1,844.8	259.2	853.4	1,376.2	4,333.6	42.6	6.0	19.7	31.7	100.0
1997	1,377.7	759.0	1,021.5	675.3	3,833.5	35.9	19.8	26.7	17.6	100.0

Source: Securities Supervisory Board, 1998.

much difference among management strategies of securities companies. Regardless of their size or competitive advantage, the firms are engaged in all three main business lines. No firm specializing in brokerage, for example, has been established despite the lower minimum capital requirement to acquire a brokerage license. With MOFE's approval, a securities company may engage in activities complementary to its main business, including credit extension to investors, securities savings, operation of the Bond Management Fund (a trust fund), payment guaranty for corporate bonds, and RP and reverse RP transactions.

However, based on the financial reform plan announced in late 1997, financial institutions, including commercial banks, will soon be able to carry out securities businesses in-house, except brokerage, which is the core business of securities companies.[10] The reform plan is part of the restructuring program to strengthen the financial industry.

Securities firms have grown steadily in number and size with the growth of the capital market. However, their financial performance has been disappointing despite Government protection of existing firms through entry barriers and diverse supportive regulatory measures.[11] The securities industry's share in the total assets of financial institutions peaked in 1991 at 3.5 percent but decreased to 1.9 percent as of end-1997 (Table A2).

The average return on equity was only 1.36 percent for those belonging to the top 30 chaebol, and 2.74 percent for the others in 1991–1996. Although

[10]The authorities allow securities business on the condition that financial institutions other than securities companies merge either with securities companies or among themselves. Unfortunately, no restructuring in the form of mergers and acquisitions has happened as of March 1998.
[11]Recognizing the public externality of a financial institution, the Government generally provides direct or indirect subsidies, including funding at lower-than-market rates, higher priority in capital raising, etc.

Table A4: Nonperforming Loan and Net Operating Capital Ratios of Securities Companies, as of January 1998

Securities Company	Nonperforming Loan Ratio (%)	Net Operating Capital Ratio (%)
Boo Kook	4.1	158.3
Boram	8.7	117.9
Cho Hung	7.2	190.6
Coryo	41.3	na
Daewoo	9.4	171.0
Daishin	8.3	129.4
Daeyu	14.7	256.4
Dong-Ah	5.3	131.0
Dongbang Peregrin	70.7	92.4
Dongbu	1.8	75.9
Dongsuh	24.9	na
Dongwon	19.3	311.1
Han Jin	35.0	29.3
Hanil	18.9	219.9
Hannuri Salomon	1.5	170.5
Hanwha	0.3	84.2
Hanyang	33.7	185.8
Hyundai	15.2	(64.8)
Keon Seol	0	721.9
Korea Development Bank	47.6	(32.0)
Korea Exchange Bank Smith Barney	0	306.5
Korea First Bank	42.4	312.8
Korea Long-Term Credit Bank	12.5	82.2
Kyobo	3.6	80.7
LG	20.7	150.0
Samsung	3.1	185.0
Seoul	34.5	79.6
Shin Heung	2.5	774.4
Shinhan	14.7	273.6
Shinyoung	0.6	646.1
SK	48.6	(216.9)
Ssangyong	9.3	54.2
Tong Yang	19.4	141.7
Yuhwa	48.8	1,181.5

na = not available.
Source: Financial Supervisory Commission.

tentative, the results for fiscal year 1997 are much gloomier as losses totalling over W1 trillion had been realized for all securities firms.[12] Only five securities firms recorded positive net profit while 26 firms registered net losses, resulting in a serious drop in their capital bases. The huge losses of securities firms in 1997 forced two of them to stop operations. More securities firms are in line for financial failure unless swift structural changes, including increased capital bases, are implemented.

[12] About $714 million at W1,400 to $1.